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THERETO, AND SYSTEMS FOR IDENTIFYING SUCH ANTIGENIC PEPTIDES(57) Abstract: The present invention provides antigenic peptides for GPCRs and antibodies relating thereto, and related systems,  
methods, compositions, and the like, such as diagnostics and medicaments. Where antibodies against a given GPCR are not known,  
the present invention provides such antibodies, and preferred antigenic sequences for producing such antibodies. Where antibodies  
against a given GPCR are known, the present invention provides preferred antigenic peptides for producing antibodies that exhibit  
improved specificity, affinity or capacity to perform antibody-related actions relative to the known antibodies.

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ANTIGENIC PEPTIDES, SUCH AS FOR G PROTEIN-COUPLED RECEPTORS  
(GPCRS), ANTIBODIES THERETO, AND SYSTEMS FOR IDENTIFYING SUCH  
ANTIGENIC PEPTIDES

5 CROSS-REFERENCE TO RELATED APPLICATIONS

[1] The present application claims priority from United States provisional patent application No. 60/257,144, filed December 19, 2000 and presently pending.

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[2] The following is a Table of Contents to assist review of the present application:

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LPHIC:

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[3]

## BACKGROUND

[4] G protein-coupled receptors (GPCRs) are a large group of proteins that transmit signals across cell membranes. In general terms, GPCRs function somewhat like doorbells.  
15 When a molecule outside the cell contacts the GPCR (pushes the doorbell), the GPCR changes its shape and activates "G proteins" inside the cell (similar to the doorbell causing the bell to ring inside the house, which in turn causes people inside to answer the door). GPCRs are like high-security doorbells because each GPCR responds to only one specific kind of signaling molecule (called its "endogenous ligand"), kind of like a high-tech door  
20 lock that responds to only one fingerprint. Part of the GPCR is located outside the cell (the "extracellular domain"), part spans the cell's membrane (the "transmembrane domain"), and part is located inside the cell (the "intracellular domain"). Thus, GPCRs are embedded in the outer membrane of a cell and recognize and bind certain signaling molecules that are present in the spaces surrounding the cell. GPCRs are used by cells to keep an eye on the cells' own  
25 activity and on the environment. In organisms that have many cells, the cells use GPCRs to talk to each other.

[5] GPCRs are important to the pharmaceutical industry and other industries. For example, many drugs, including some antibody-based drugs, act by binding to specific GPCRs and initiating or inhibiting their intracellular actions, and diagnostics and therapeutics  
30 based on GPCRs or on antibodies for GPCRs are becoming increasingly important.

[6] General concepts about GPCRs are discussed in more scientific terms in the following paragraphs.

[7] The GPCR superfamily has at least 250 members, Strader et al., FASEB J., 9:745-754 (1995); Strader et al., Annu. Rev. Biochem., 63:101-32 (1994). GPCRs play important



roles in diverse cellular processes including cell proliferation and differentiation, leukocyte migration in response to inflammation, gene transcription, vision (the rhodopsins), smell (the olfactory receptors), neurotransmission (muscarinic acetylcholine, dopamine, and adrenergic receptors), and hormonal response (luteinizing hormone and thyroid-stimulating hormone receptors). Strader et al., *supra*; U.S. Patent nos. 5,994,097 and 6,063,596. Many important  
5 drugs produce their therapeutic actions through their interaction with GPCRs.

[8] Nucleotide and amino acid sequences for many GPCRs have been reported and can be found in public databases such as GenBank and GenPept. Generally speaking, different GPCRs show both structural and sequence similarities. The most conserved domains of  
10 GPCRs are the transmembrane domains and the first two cytoplasmic loops. GPCRs range in size from under 400 to over 1000 amino acids. Coughlin, S. R., Curr. Opin. Cell Biol. 6:191-197 (1994). They contain seven hydrophobic transmembrane regions that span the cellular membrane and form a bundle of antiparallel alpha helices. McKee K.K., *supra*. The bundle of helices forming the transmembrane regions provide many structural and functional  
15 features of the receptor. In most cases, the bundle of helices form a pocket that binds a signaling molecule. However, when the binding site accommodates larger molecules, the extracellular N-terminal segment or one or more of the three extracellular loops participate in binding and in subsequent induction of conformational change in the intracellular portions of the receptor. These helices are joined at their ends by three intracellular and three  
20 extracellular loops. GPCRs also contain cysteine disulfide bridges between the second and third extracellular loops, an extracellular N-terminus, and a cytoplasmic or intracellular C-terminus. The N-terminus is often glycosylated, while the C-terminus is generally phosphorylated. A conserved, acidic-Arg-aromatic triplet present in the second cytoplasmic loop may interact with G Proteins. Most GPCRs contain a characteristic consensus pattern.  
25 Watson, S. and S. Arkinstall, The G protein Linked Receptor Facts Book, Academic Press, San Diego, CA (1994); Bolander, F. F. Molecular Endocrinology, Academic Press, San Diego, CA (1994).

[9] Although GPCRs have many features in common, each GPCR has its own unique characteristics as well. GPCRs have varying nucleotide and amino acid sequences, and  
30 varying antigenicity. GPCRs bind a diverse array of specific, extracellular signaling molecules (which can also be referred to as "ligands") including peptides, cytokines, hormones, neurotransmitters, growth factors, and specialized stimuli such as photons,

flavorants, and odorants. Identified ligands include, for example, purines, nucleotides (*e.g.*, adenosine, cAMP, NTPs), biogenic amines (*e.g.*, epinephrine, norepinephrine, dopamine, histamine, noradrenaline, serotonin), acetylcholine, peptides (*e.g.*, angiotensin, calcitonin, chemokines, corticotropin releasing factor, galanin, growth hormone releasing hormone, gastric inhibitory peptide, glucagon, neuropeptide Y, neurotensin, opioids, thrombin, secretin, somatostatin, thyrotropin releasing hormone, vasopressin, vasoactive intestinal peptide), lipids and lipid-based compounds (*e.g.*, cannabinoids, platelet activating factor), excitatory and inhibitory amino acids (*e.g.*, glutamate, GABA), ions (*e.g.*, calcium), and toxins.

[10] In general, a GPCR binds only one type of signaling molecule and GPCRs are classified according to subfamilies based upon their selectivity and specificity for a particular ligand. When the ligand for a receptor is not known, the receptor is known as an orphan receptor. The extracellular domain interacts with or binds to certain signaling molecules or ligands located outside of the cell. The binding of a ligand to the extracellular domain alters the conformation of the receptor's intracellular domain causing the activation of a G protein. The G protein then activates or inactivates a separate plasma-membrane-bound enzyme or ion channel. This chain of events alters the concentration of one or more intracellular messengers (second messengers) such as cyclic AMP (cAMP), inositol triphosphate, diacylglycerol, or  $\text{Ca}^{2+}$ . These, in turn, alter the activity of other intracellular proteins such as cAMP-dependent protein kinase and  $\text{Ca}^{2+}$ /calmodulin-dependent protein kinases, leading to the transduction and amplification of the original extracellular signal. Baldwin, J.M., *Curr. Opin. Cell Biol.* 6:180-190 (1994). The G protein is deactivated by hydrolysis of GTP by GTPase. U.S. Patent Nos. 5,994,097 and 6,063,596.

[11] GPCR mutations, both of the loss-of-function and of the activating variety, have been associated with numerous human diseases, Coughlin, *supra*. For example, retinitis pigmentosa may arise from either loss-of-function or activating mutations in the rhodopsin gene. Somatic activating mutations in the thyrotropin receptor cause hyperfunctioning thyroid adenomas, Parma, J. et al., *Nature* 365:649-651 (1993). Parma et al. indicate that it may be possible that certain G protein-coupled receptors susceptible to constitutive activation may behave as proto-oncogenes. Interestingly, GPCRs have functional homologues in human cytomegalovirus and herpesvirus, so GPCRs may have been acquired during evolution for viral pathogenesis, Strader et al., *FASEB J.*, 9:745-754 (1995); Arvanitakis et al., *Nature*, 385:347-350 (1997); Murphy, *Annu. Rev. Immunol.* 12:593-633 (1994). The

importance of the GPCR superfamily is further highlighted by the recent discoveries that some of its family members, the chemokine receptors CXCR4/Fusin and CCR5, are co-receptors for T cell-tropic and macrophage-tropic HIV virus strains, respectively, Alkhatib et al., Science, 272:1955 (1996); Choe et al., Cell, 85:1135 (1996); Deng et al., Nature, 381:661  
5 (1996); Doranz et al., Cell, 85:1149 (1996); Dragic et al., Nature, 381:667 (1996); Feng et al., Science, 272:872 (1996). It is conceivable that blocking these receptors may prevent infection by the human immunodeficiency (HIV) virus. Other GPCR-related items include regulating cellular metabolism and diagnosing, treating and preventing particular diseases associated with particular GPCRs.

10 [12] One important way to evaluate GPCRs and antibodies for GPCRs as novel drug targets and for other purposes such as diagnostics is through the creation and use of databases. Such databases can provide large amounts of information about genes, proteins, and other biological matter. An excellent example of such a database is the GPCR database created and maintained by LifeSpan BioSciences, Inc., Seattle, Washington, USA, which  
15 database is available by subscription to researchers and others needing such information. The information in the databases can, for example, be searched, compared, and analyzed. The compilation of such databases, as well as the searching, comparing, etc., of the databases, can be referred to as the field of "bioinformatics." Investigations largely related to genes, such as the information found from the sequencing of the human genome, can be called "genomics"  
20 while similar activities on proteins can be called "proteomics."

[13] There has gone unmet a need for improved systems, compositions, methods, and the like relating to improved antigenicity of peptides from GPCRs and antibodies relating thereto. The present invention provides these and other advantages.

#### SUMMARY

25 [14] The present invention provides antigenic peptides for GPCRs and antibodies relating thereto, and related systems, methods, compositions, and the like, such as diagnostics and medicaments. Where antibodies against a given GPCR are not known, the present invention provides such antibodies, and preferred antigenic sequences for producing such antibodies. Where antibodies against a given GPCR are known, the present invention  
30 provides preferred antigenic peptides for producing antibodies that exhibit improved specificity, affinity or capacity to perform antibody-related actions relative to the known

antibodies. The present invention also provides improved methods of selecting antigenic peptides from any desired protein or polypeptide, as well as antigenic peptides so produced and antibodies against such antigenic peptides.

- [15] The antigenic peptides and antibodies herein can be used, for example, to detect the presence or absence of corresponding GPCRs. They can be used to diagnose a variety of diseases and disorders in which GPCRs are involved, such as, *e.g.*, immune-related diseases, cell growth-related diseases, cell regeneration-related diseases, immunological-related cell proliferative diseases, and autoimmune diseases. Examples of specific diseases include AIDS, allergies, Alzheimer's disease, amyotrophic lateral sclerosis, atherosclerosis, bacterial, fungal, protozoan and viral infections, benign prostatic hypertrophy, bone diseases (*e.g.*, osteoarthritis, osteoporosis), carcinoma (*e.g.*, basal cell carcinoma, breast carcinoma, embryonal carcinoma, ovarian carcinoma, renal cell carcinoma, lung adenocarcinoma, lung small cell carcinoma, pancreatic carcinoma, prostate carcinoma, transitional carcinoma of the bladder, squamous cell carcinoma, thyroid carcinoma), cardiomyopathy, chronic and acute inflammation, circadian rhythm disorders, COPD, Crohn's disease, diabetes, Duchenne muscular dystrophy, embryonal carcinoma, endotoxic shock, environmental stress (*e.g.*, by heat, UV or chemicals), gastrointestinal disorders, glioblastoma multiform, graft vs. host disease, Hodgkin's disease, inflammatory bowel disease, ischemia, stroke, lymphoma, macular degeneration, malignant cytokine production, malignant fibrous histiocytoma, melanoma, meningioma, mesothelioma, multiple sclerosis, nasal congestion, pain, Parkinson's disease, prostate carcinoma, psoriasis, rhabdomyosarcoma, psychotic or neurological disorders (*e.g.*, anxiety, depression, schizophrenia, dementia, mental retardation, memory loss, epilepsy, locomotor problems, respiratory disorders, asthma, eating/body weight disorders including obesity, bulimia, diabetes, anorexia, nausea, hypertension, hypotension), renal disorders, reperfusion injury, rheumatoid arthritis, sarcoma (*e.g.*, chondrosarcoma, Ewing's sarcoma, osteosarcoma), septicemia, seminoma, sexual/reproductive disorders, tonsil, transitional carcinoma of the bladder, transplant rejection, trauma, tuberculosis, ulcers, ulcerative colitis, urinary retention, vascular and cardiovascular disorders, or any other disease or disorder in which G protein-coupled receptors are involved, as well as learning and/or memory disorders, diabetes, pain perception disorders, anorexia, obesity, hormonal release problems, or any other disease or disorder in which a specific GPCR is involved.

[16] The association of particular GPCRs with particular diseases, disorders or conditions will be apparent to a person of ordinary skill in the art in view of the present application, and thus the association with the antibodies of the present invention to the corresponding diseases, disorders or conditions.

5 [17] Thus, in one aspect the present invention provides isolated antigenic peptides according to any one of SEQ ID NOS. 692-2292. The isolated antigenic peptides also comprise an amino acid sequences that are at least about 90% or 95% identical to such sequences, or be an analog of such sequences, or comprise a short antigenic amino acid sequence that is identical to at least 5 consecutive amino acids set forth in any one of such  
10 sequences or contain no more than one conservative amino acid substitution over at least 7 consecutive amino acids set forth in any of such sequences. The present invention also provides antibodies, particularly isolated antibody having high specificity and high affinity or avidity for a particular GPCR or other target polypeptide or protein, generated using the antigenic peptides discussed herein.

15 [18] The present invention also provides isolated nucleic acid molecules encoding an antigenic peptide or antibody as described herein. The molecule can encode a naturally occurring human antigenic peptide. In some embodiments, the present invention provides processes for producing an isolated polynucleotide can comprise hybridizing a nucleotide encoding an antigenic peptide as discussed herein to DNA such as genomic DNA under  
20 stringent or highly stringent conditions and isolating the polynucleotide detected with the nucleotide.

[19] The present invention also provides kits and assays, such as kits for the detection of antibodies against a particular GPCR or other target polypeptide in a sample comprising: a) an isolated antigenic peptide as discussed herein and derived from the particular GPCR, and  
25 b) at least one of a reagent or a device for detecting the antibodies, or comprising: a) an isolated antibody as described herein, and b) at least one of a reagent or a device for detecting the antibody. The assays include detection of a particular GPCR in a sample, comprising: a) providing an isolated antigenic peptide, b) contacting the isolated antigenic peptide corresponding to the particular GPCR with the sample under conditions suitable and for a  
30 time sufficient for the antigenic peptide to bind to one or more antibodies specific for the target protein present in the sample, to provide an antibody-bound target protein, and c) detecting the antibody-bound antigenic peptide, and therefrom determining whether the

sample contains the particular GPCR. The assays can further comprise the step of binding the isolated antigenic peptide or the antibody to a solid substrate, and the sample can be an unpurified sample, for example from a human being.

- [20] The assay can be selected from the group consisting of a countercurrent immuno-electrophoresis (CIEP) assay, a radioimmunoassay, a radioimmunoprecipitation, an enzyme-linked immuno-sorbent assay (ELISA), a dot blot assay, an inhibition or competition assay, a sandwich assay, an immunostick (dip-stick) assays, a simultaneous assay, an immunochromatographic assay, an immunofiltration assay, a latex bead agglutination assay, an immunofluorescent assay, a biosensor assay, and a low-light detection assay.
- 10 [21] In other aspects, the present invention provides methods of identifying an amino acid sequence for an antigenic peptide from a candidate polypeptide sequence such as a polypeptide or protein wherein the antigenic peptide has a length of about 5 to about 100 amino acids, typically 6 amino acids to about 50 amino acids, and preferably 7 amino acids to about 20 amino acids. The methods comprise: a) searching the candidate polypeptide  
15 sequence using a comparison window of the length, and b) selecting against amino acid sequences of the length and having at least 1 to 3 or 4 characteristics selected from the group consisting of 1) at least two consecutive prolines, 2) at least two consecutive serines, 3) at least two consecutive lysines, 4) at least two consecutive arginines, 5) at least two consecutive aspartic acids, 6) at least two consecutive glutamic acids, 7) methionine, 8)  
20 tryptophan, and 9) at least five consecutive amino acids comprising no charged amino acids. Preferably, the method comprises selecting against at least 5 to all of the characteristics.

- [22] The methods can comprise, independently or in addition, selecting against amino acid sequences of the desired length having at least one of the following characteristics 1) sequences having at least 5 consecutive amino acids that are identical to an alternative amino  
25 acid sequence from an alternative polypeptide that can be different from the candidate polypeptide, 2) posttranslational modification sites, and 3) highly hydrophobic sequences. The posttranslational modification sites can be phosphorylation or glycosylation sites. The methods can also comprise performing a BLAST-type or a FAST-type analyses for the candidate polypeptide sequence.

- 30 [23] These and other aspects, features, and embodiments are set forth within this application, including the following Detailed Description and attached drawings. The present invention comprises a variety of aspects, features, and embodiments; such multiple aspects,

features, and embodiments can be combined and permuted in any desired manner. In addition, various references are set forth herein, including in the Cross-Reference To Related Applications, that discuss certain compositions, apparatus, methods, or other information; all such references are incorporated herein by reference in their entirety and for all their teachings and disclosures, regardless of where the references may appear in this application.

#### BRIEF DESCRIPTION OF THE DRAWING

[24] Figure 1 depicts representative examples of the nucleotide and amino acid sequences of the GPCRs for which antigenic peptides are set forth herein, SEQ ID NOS. 1 - 691.

10 [25] Figure 2 depicts amino acid sequences for the antigenic peptides for the GPCRs herein, SEQ ID NOS. 692-2292.

[26] Figure 3 depicts a listing of GPCRS for which commercially available antibodies are putatively available.

#### DETAILED DESCRIPTION

##### 15 A. INTRODUCTION AND OVERVIEW

[27] Diseases such as immune-related diseases, cell growth-related diseases, cell regeneration-related diseases, immunological-related cell proliferative diseases, and autoimmune diseases are serious health problems in the modern world. Any improvement in the diagnosis, treatment or other remediation of such diseases is a significant advance for millions of people. The present invention provides methods of identifying and selecting desirable antigenic peptides for GPCRs and other desired target or candidate proteins and polypeptides. The present invention also provides the antigenic peptides themselves, as well as antibodies against the antigenic peptides (and against proteins or polypeptides containing such antigenic peptides), and related diagnostics, antibody-based therapeutics directed to certain diseases and conditions, and other helpful compositions, systems, kits, assays and the like. The compositions, methods, and the like can be useful, for example, as agonists, antagonists, probes, and otherwise as may be desired.

[28] The antigenic peptides have been carefully selected using specific selection criteria and methodologies set forth herein to take advantage of particularly advantageous regions of the GPCRs from which they have been derived to provide unusually specific and

immunogenic antigens. These antigenic peptides are particularly useful for producing highly specific antibodies against the antigenic peptides, which, in turn, also means antibodies that are highly specific for the corresponding GPCRs containing the antigenic peptides. Accordingly, the antigenic peptides of the present invention, and the antibodies produced therefrom, are particularly useful for high specificity, low noise diagnostics and, in the case of the antibodies, for certain antibody-based therapeutics, as well as methods, kits, systems, and the like incorporating or based on such antigenic peptides or antibodies.

[29] The antibodies produced using the antigenic peptides of the present invention, for example, have a specificity for the corresponding GPCR such that the antibodies can selectively detect the corresponding GPCR in a sample containing non-desired or contaminating proteins or polypeptides, such as a tissue or blood sample. Preferably, the antibodies have a high specificity such that no significant amounts of such proteins or polypeptides are detected, and further preferably have a specificity such that only insubstantial to essentially zero amounts of non-desirable proteins are detected.

[30] The antibodies produced using the antigenic peptides of the present invention, for example, typically have an affinity or avidity constant ( $K_a$ ) of at least about  $10^7$  liters/mole, typically a high affinity or avidity at least about  $10^9$  liters/mole, preferably at least about  $10^{10}$  liters/mole, and further preferably at least about  $10^{11}$  liters/mole.

[31] Figure 1 sets forth the DNA and protein sequences for the GPCRs from which the antigenic peptides of the present invention were derived SEQ ID NOS. 1-691. Figure 2 sets forth the amino acid sequences of exemplary antigenic peptides, SEQ ID NOS. 692-2292. The sequences in Figures 1 and 2 are listed according to SEQ ID NO and LSID, which is an identification number assigned to the given sequence in the LifeSpan Biosciences databases. The sequences in Figure 2 also include an identifier LPID, which is also an identification number assigned to the given sequence in the LifeSpan Biosciences databases. Figure 3 depicts GPCRs for which it has been reported that antibodies are commercially available, SEQ ID NOS. 1, 3, 5, 11, 13, 15, 21, 23, 25, 27, 29, 31, 35, 37, 39, 41, 43, 45, 49, 51, 53, 57, 59, 61, 63, 65, 67, 69, 70, 71, 73, 75, 77, 79, 83, 85, 97, 99, 101, 103, 105, 107, 113, 115, 117, 121, 125, 135, 139, 143, 145, 147, 151, 155, 157, 159, 161, 169, 171, 173, 175, 177, 183, 185, 187, 189, 191, 192, 194, 200, 202, 206, 208, 214, 216, 218, 228, 236, 238, 240, 248, 250, 264, 295, 299, 301, 305, 311, 313, 315, 317, 319, 321, 323, 325, 327, 329, 331, 333, 335, 337, 347, 349, 351, 361, 365, 367, 369, 371, 377, 379, 385, 387, 389, 391, 397,



423, 435, 439, 457, 459, 461, 462, 468, 470, 472, 503, 507, 515, 535, 537, 546, 548, 552, 562, 628, 636; Applicants do not represent that any of the antibodies in Figure 3 that such antibodies are actually commercially available nor that they have any significant specificity nor affinity for the GPCRs reported. For GPCRs for which no antigens or antibodies were previously known, the present invention provides valuable antigenic peptides and antibodies (see, e.g., SEQ ID NOS. 704-712, 731-743, 774-777, 803-806, 821-824, 876-879, 890-916, 942-949, 965-970, 985-988, 994-1009, 1014-1020, 1025-1028, 1044-1048, 1053-1056, 1073-1086, 1114-1123, 1152-1160, 1173-1178, 1188-1197, 1210-1227, 1232-1244, 1258-1270, 1280-1303, 1309-1368, 1373-1377, 1386-1389, 1394-1402, 1462-1482, 1496-1525, 1542-1549, 1557-1563, 1583-1649, 1656-1679, 1684-1688, 1693-1732, 1744-1752, 1765-1839, 1846-1854, 1855-1866, 1871-1917, 1926-1941, 1952-1955, 1960-1980, 1985-2141, 2152-2165, and 2170-2292.); for GPCRs for which antigens or antibodies are known, the present invention provides improved antigens in the form of antigenic peptides and improved antibodies (see, e.g., SEQ ID NOS. 692-703, 713-730, 744-802, 807-820, 825-875, 880-889, 917-941, 950-964, 971-984, 989-993, 1010-1013, 1021-1024, 1029-1043, 1049-1052, 1057-1072, 1087-1113, 1124-1151, 1161-1172, 1179-1187, 1198-1209, 1228-1231, 1245-1257, 1271-1279, 1304-1308, 1369-1372, which are antigenic peptides derived from GPCRs for which antibodies are reportedly commercially available). The antigenic peptides and antibodies, and uses and assays, etc., related to the antigenic peptides, are discussed further below.

[32] The discussion herein, including the following passages, has been separated by headings for convenience. The disclosure under a given heading is not restricted to that heading. For example, the discussion in the definitions section is a part of the disclosure of the invention, the discussion on antigenic peptides also contains discussion related to probes and diagnostics, and the discussion on antibodies contains discussion related to therapeutic compositions, etc.

## B. DEFINITIONS

[33] The following paragraphs provide a non-exhaustive list of definitions of some of the terms and phrases as used herein. All terms used herein, including those specifically described below in this section, are used in accordance with their ordinary meanings unless the context or definition indicates otherwise. Also unless indicated otherwise, except within

the claims, the use of "or" includes "and" and vice-versa. Non-limiting terms are not to be construed as limiting unless expressly stated (for example, "including" means "including without limitation" unless expressly stated otherwise).

[34] The terms set forth in this application are not to be interpreted in the claims as indicating a "means plus function" relationship unless the word "means" is specifically recited in a claim, and are to be interpreted in the claims as indicating a "means plus function" relationship where the word "means" is specifically recited in a claim. Similarly, the terms set forth in this application are not to be interpreted in method or process claims as indicating a "step plus function" relationship unless the word "step" is specifically recited in the claims, and are to be interpreted in the claims as indicating a "step plus function" relationship where the word "step" is specifically recited in a claim.

[35] "Agonist" indicates a substance, such as a molecule or compound, that interacts with a particular GPCR, for example by binding to the GPCR, to activate, increase, or prolong the amount or the duration of the effect of the biological activity or functionality of the GPCR. Agonists include proteins, nucleic acids, carbohydrates, or any other molecules that bind to and positively modulate the effect of the GPCR. Agonists and other modulators of the particular GPCR can be identified using *in vitro* or *in vivo* assays for G protein-coupled receptor expression or G protein-mediated signaling. For example, assays for agonists and other modulators include expressing a particular GPCR in cells or cell membranes, applying putative modulator compounds in the presence or absence of a specific known or putative ligand and then determining the functional effects on the particular GPCR-mediated signaling. Samples or assays comprising a particular GPCR that are treated with a potential agonist or other modulator are compared to control samples without the agonist or other modulator to examine the extent of modulation. Control samples can be assigned a relative activity value for the particular GPCR of 100%. Agonist activity on a particular GPCR is achieved when the G protein-coupled receptor activity value relative to the control is at least about 110%, optionally about 150%, preferably about 200-500%, or about 1000-3000% or higher. Down-modulation (for example by an antagonist) of a particular GPCR is achieved when the particular GPCR activity value relative to the control is at most about 90%, typically about 80%, optionally about 50% or about 25-0% of the 100% value.

[36] "Aggregate," see Complex.

[37] "Algorithm" refers to a detailed sequence of actions to perform to accomplish some task. In computer programming, refers to instructions given to the computer.

[38] "Allele" or "allelic sequence" indicates an alternative form of the gene encoding the GPCR. Alleles may result from at least one mutation in the nucleic acid sequence and may  
5 result in altered mRNAs or in polypeptides whose structure or function may or may not be altered. Any given natural or recombinant gene may have none, one, or many allelic forms. Common mutational changes that give rise to alleles are generally ascribed to natural deletions, additions, or substitutions of nucleotides. Each of these types of changes may occur alone or in combination with the others, one or more times in a given sequence.

10 [39] "Altered" nucleic acid sequences encoding the GPCR include those sequences with deletions, insertions, or substitutions of different nucleotides, resulting in a polynucleotide encoding the same GPCR or a polypeptide variant with at least one substantial structural or functional characteristic of the GPCR. Included within this definition are polymorphisms that may or may not be readily detectable using a particular oligonucleotide probe against the  
15 polynucleotide encoding the GPCR. "Altered" proteins may contain deletions, insertions, or substitutions of amino acid residues that produce a silent change and result in a functionally equivalent GPCR. Deliberate amino acid substitutions may be made on the basis of similarity in polarity, charge, solubility, hydrophobicity, hydrophilicity, or the amphipathic nature of the residues, as long as the biological or immunological activity of the GPCR is  
20 retained. For example, negatively charged amino acids may include aspartic acid and glutamic acid, positively charged amino acids may include lysine and arginine, and amino acids with uncharged polar head groups having similar hydrophilicity values may include leucine, isoleucine, and valine; glycine and alanine; asparagine and glutamine; serine and threonine; and phenylalanine and tyrosine.

25 [40] "Alternative splicing" refers to different ways of cutting and assembling exons to produce mature mRNAs.

[41] "Amino acid" refers generally to any of a class of organic compounds that contains at least one amino group,  $-NH_2$ , and one carboxyl group,  $-COOH$ . The alpha-amino acids,  $RCH(NH_2)COOH$ , are the building blocks from which proteins are typically constructed.  
30 Amino acid can also refer to artificial chemical analogues or mimetics of a given amino acid as described, depending on the context.

[42] "Amino acid sequence" refers to a string of amino acids, such as an oligopeptide, peptide, polypeptide, or protein sequence, or a fragment of any of these, including naturally occurring or synthetic molecules and those comprising an artificial chemical analogue or mimetic of a given amino acid. In this context, "biologically active fragments," "biologically functional fragments," "immunogenic fragments," and "antigenic fragments" refer to fragments of the GPCR that are preferably about 15, 25, or 50 or more amino acids in length and that retain a substantial amount of such activity of the GPCR. Where "amino acid sequence" refers to an amino acid sequence of a naturally occurring protein molecule, "amino acid sequence" and like terms are not necessarily limited to the complete native amino acid sequence associated with the recited protein molecule.

[43] "Amplification" indicates the production of additional copies of something, such as a nucleic acid sequence. Amplification can be generally carried out using polymerase chain reaction (PCR) technologies or other technologies such as the cycling probe reaction (CPR) that are well known in the art. See, e.g., Dieffenbach, C. W. and G. S. Dveksler, PCR Primer, a Laboratory Manual, pp.1-5, Cold Spring Harbor Press, Plainview, N.Y. (1995); U.S. Patents Nos. 5,660,988, 5,731,146 and 6,136,533.

[44] "Amplification primers" are oligonucleotides such as natural, analog or artificially created nucleotides that can serve as the basis for the amplification of a selected nucleic acid sequence. They include, for example, both PCR primers and ligase chain reaction oligonucleotides.

[45] "Analog" or "variant" indicates a GPCR or antigenic peptide that has been modified by deletion, addition, modification, or substitution of one or more amino acid residues compared to the wild-type sequence. Analogs encompass allelic and polymorphic variants, and also muteins and fusion proteins that comprise all or a significant part of such GPCR, e.g., covalently linked via side-chain group or terminal residue to a different protein, polypeptide, or moiety (fusion partner). Variants of a particular GPCR protein refer to an amino acid sequence that is altered by one or more amino acids, for example by one or more amino acid substitution, insertion, deletion or modification, or proteins with or without associated native-pattern glycosylation. The variant may have "conservative" changes. Such "conservative" changes generally are well known in the art and readily determinable for a particular GPCR in view of the present application. Conservative changes include, for example, substitutions where a substituted amino acid has similar structural or chemical

properties to the amino acid it replaced (*e.g.*, negatively charged amino acids include aspartic acid and glutamic acid; positively charged amino acids include lysine, arginine, histidine, asparagine, and glutamine; amino acids containing sulfur include methionine and cysteine; polar hydroxy amino acids include serine, threonine, and tyrosine; large hydrophobic amino acids include phenylalanine and tryptophan; small hydrophobic amino acids include alanine, leucine, isoleucine, and valine). A variant may also have "**nonconservative**" changes which means that the replacement amino acid provides some substantial change in the amino sequence.

[46] A variant preferably retains at least about 90% identity, and more preferably at least about 95% identity. Within certain embodiments, such variants contain alterations such that the ability of the variant to induce an immunogenic response is not substantially eliminated; in some embodiments the ability to an immunogenic response is not substantially diminished. Modifications of amino acid residues may include but are not limited to aliphatic esters or amides of the carboxyl terminus or of residues containing carboxyl side chains, O-acyl derivatives of hydroxyl group-containing residues, and N-acyl derivatives of the amino-terminal amino acid or amino-group containing residues, *e.g.*, lysine or arginine. Guidance in determining which and how many amino acid residues may be substituted, inserted, deleted or modified without diminishing immunological or biological activity may be found in view of the present application using any of a variety of methods and computer programs known in the art, for example, DNASTAR software. Properties of a variant may generally be evaluated by assaying the reactivity of the variant with, for example, antibodies as described herein or evaluating a biological activity characteristic of the native protein as described herein or as known in the art in view of the present application. Certain polynucleotide variants are capable of hybridizing under appropriately stringent conditions to a naturally occurring DNA sequence encoding a particular GPCR protein (or a complementary sequence). Such hybridizing nucleic acid sequences are also within the scope of this invention.

[47] "**Antagonist**" refers to a molecule which interacts with a particular GPCR, for example by binding to the particular GPCR, and prevents, inactivates, decreases or shortens the amount or the duration of the effect of the biological activity of the GPCR. Antagonists include proteins, nucleic acids, carbohydrates, antibodies, or any other molecules that so affect the GPCR. Antagonists can be identified, for example, using appropriate screens

corresponding to those described for agonists above and elsewhere herein or as would be apparent to those skilled in the art in view of the present application.

[48] "Antibody" indicates one type of binding partner, typically encoded by an immunoglobulin gene or immunoglobulin genes, and refers to, for example, intact  
5 monoclonal antibodies (including agonist and antagonist antibodies), polyclonal antibodies, phage display antibodies, and multispecific antibodies (*e.g.*, bispecific antibodies) formed, for example, from at least two intact antibodies. Antibody also refers to fragments thereof, which comprise a portion of an intact antibody, generally the antigen-binding or variable region of the intact antibody that are capable of binding the epitopic determinant. Examples  
10 of antibody fragments include Fab, Fab', F(ab')<sub>2</sub>, and Fv fragments, diabodies, linear antibodies, single-chain antibody molecules, and multispecific antibodies formed from antibody fragments. *See* US Patent No. 6,214,984. Antibody fragments may be synthesized by digestion of an intact antibody or synthesized *de novo* either chemically or utilizing recombinant DNA technology. Antibodies according to the present invention have at least  
15 one of adequate specificity, affinity and capacity to perform the activities desired for the antibodies. Antibodies can, for example, be monoclonal, polyclonal, or combinatorial. Antibodies that bind GPCR polypeptides can be prepared using intact polypeptides or using fragments containing small peptides of interest as the immunizing antigen. The polypeptide or oligopeptide used to immunize an animal (*e.g.*, a mouse, a rat, or a rabbit) can be derived  
20 from the translation of RNA, or synthesized chemically, and can be conjugated to a carrier protein if desired. Commonly used carriers that are chemically coupled to peptides include bovine serum albumin, thyroglobulin, and keyhole limpet hemocyanin (KLH). The coupled peptide is then used to immunize the animal.

[49] "Antigenic determinant" refers to the antigen recognition site on an antigen (*i.e.*,  
25 epitope). Such antigenic determinant may also be immunogenic.

[50] "Antisense" refers to any composition containing a nucleic acid sequence that is complementary to a specific nucleic acid sequence. "Antisense strand" refers to a nucleic acid strand that is complementary to the "sense" strand. Antisense molecules may be produced by any method including transcription or synthesis including synthesis by ligating  
30 the gene(s) of interest in a reverse orientation to a desired promoter that permits the synthesis of a complementary strand. Once introduced into a cell, the complementary nucleotides can combine with natural sequences produced by the cell to form duplexes and to block either

transcription or translation. The designation "negative" can refer to the antisense strand, and the designation "positive" can refer to the sense strand.

[51] **"Biologically active" or "biologically functional,"** when referring to an antigenic peptide, indicates that the antigenic peptide induces an immunogenic response specific for the antigenic peptide and thus for the GPCR from which it was obtained. A variant, fragment, etc., of an antigenic peptide is "biologically active" or "biologically functional" if the ability to induce the specific immunogenic response is not substantially diminished. The term "not substantially diminished" means retaining a functionality that is at least about 90% of the functionality of the native antigenic peptide. Appropriate assays designed to evaluate such functionality may be designed based on existing assays known in the art in view of the present application, or on the representative assays provided herein.

[52] **"Annotation"** refers to the provision of helpful or identifying information about a GPCR or other open reading frame (ORF), such as locus name, key words, and Medline references.

[53] **"BLAST"** refers to the Basic Local Alignment Search Tool, which is a technique for detecting ungapped sub-sequences that match a given query sequence. BLAST can be used as a preliminary step for detecting ORF boundaries.

[54] **"BLASTP"** refers to a BLAST program that compares an amino acid query sequence against a protein sequence database.

[55] **"BLASTX"** refers to a BLAST program that compares the six-frame conceptual translation products of a nucleotide query sequence (both strands) against a protein sequence database. BLASTX can be used to create a sub-database of ORFs which may exist on a contig, and to identify the best match between one of these ORFs and a sequence in an external database.

[56] **"Buffer"** refers to a component in a solution to provide a buffered solution that resists changes in pH by the action of its acid-base conjugate components.

[57] **"CDS"** refers to the GenBank DNA sequence entry for coding sequence. A coding sequence is a sub-sequence of a DNA sequence that is surmised to encode a gene. A complete gene coding sequence begins with an "ATG" and ends with a stop codon.

[58] **"Clone"** in molecular biology refers to a vector carrying an insert DNA sequence.

[59] **"Cloning"** in molecular biology refers to a recombinant DNA technique used to produce multiple, up to millions or more, copies of a DNA sequence. The DNA sequence is

inserted into a small carrier or vector (*e.g.*, plasmid, bacteriophage, or virus) and inserted into a host cell for amplification or expression.

[60] "Cluster" refers to a group of ORFs related to one another by sequence homology. Clusters are generally determined by a specified degree of homology and overlap (*e.g.*, a stringency).

[61] "Comparison window" indicates a segment of any one of the number of contiguous positions selected from the group consisting of from 20 to 600, usually about 50 to about 200, more usually about 100 to about 150 in which a sequence may be compared to a reference sequence of the same number of contiguous positions after the two sequences are aligned to enhance sequence similarity. Methods of alignment of sequences for comparison will be readily apparent to a person of ordinary skill in the art in view of the present application.

[62] "Complementary" or "complementarity" refers to the natural binding of polynucleotides by base pairing. For example, the sequence "A-G-T" binds to the complementary sequence "T-C-A." Complementarity between two single-stranded molecules may be "partial," such that only some of the nucleic acids bind, or it may be "complete," such that all of the nucleotides of at least one of the single-stranded molecules binds to corresponding nucleotides of the other single-stranded molecule. The degree of complementarity between nucleic acid strands has significant effects on the efficiency and strength of the hybridization between the nucleic acid strands. This can be of particular importance in amplification reactions, which can depend upon binding between nucleic acids strands, and in the design and use of peptide nucleic acid (PNA) molecules.

[63] "Complex," or "aggregate," indicates a dimer or multimer formed between at least two proteins or other macromolecules, for example a GPCR and its ligand.

[64] "Composition" indicates a combination of multiple substances into a mixture.

[65] "Composition comprising a given amino acid sequence" refers broadly to any composition containing the given amino acid sequence. The composition may comprise a dry formulation, an aqueous solution, or a sterile composition.

[66] "Consensus sequence" refers to the sequence that reflects the most common choice of base or amino acid at each position from a series of related DNA, RNA, or protein sequences. Areas of particularly good agreement often represent conserved functional domains. The generation of consensus sequences has typically been subjected to intensive mathematical analysis.



- [67] **"Conservative changes"** to an amino acid sequence, see Analog.
- [68] **"Deletion"** refers to a change in the amino acid or nucleotide sequence that results in the absence of one or more amino acid residues or nucleotides.
- [69] **"Derivative"** refers to chemical modification of an antigenic peptide, or of an antibody specific for and created from the antigenic peptide. A derivative peptide can be modified, for example, by glycosylation or pegylation.
- [70] **"Diabodies"** refers to one type of antibody comprising small antibody fragments with two antigen-binding sites, which fragments comprise a heavy-chain variable domain ( $V_H$ ) connected to a light-chain variable domain ( $V_L$ ) on the same polypeptide chain ( $V_H$ - $V_L$ ).  
10 By using a linker that is too short to allow pairing between the two domains on the same chain, the domains pair with the complementary domains of another chain and create two antigen-binding sites. Diabodies are described, for example, in EP 404,097; WO 93/11161; and Holliger et al., Proc. Natl. Acad. Sci. USA, 90:6444-6448 (1993).
- [71] **"Database"** refers to a structured format for organizing and maintaining information or data, a collection of data records, in a computer-readable form that can be rapidly and easily retrieved. A database is typically stored in a computer-readable memory. Records may comprise web pages, graphics, audio files, text files, or links. Records may or may not be further broken into fields. Database records are usually indexed and come with a search interface to find records of interest.
- 15 [72] **"E-value"** refers to a result of a FASTA analysis. The number indicates the probability that a match between two sequences is due to random chance.
- [73] **"Expression vector"** is a specialized vector constructed so that the gene inserted in the vector can be expressed in the cytoplasm of a host cell.
- [74] **"FASTA"** refers to a modular set of sequence comparison programs used to  
25 compare an amino acid or DNA sequence against all entries in a sequence database. FASTA was written by Professor William Pearson of the University of Virginia Department of Biochemistry. The program uses the rapid sequence algorithm described by Lipman and Pearson (1988) and the Smith-Waterman sequence alignment protocol. FASTA performs a protein to protein comparison.
- 30 [75] **"FASTX"** refers to a module of the FASTA protocol used to define optimal ORF boundaries while searching for genes. FASTX uses a nucleotide to protein sequence comparison.

[76] "Fragment," see Portion.

[77] "GenBank" refers to a family of public databases comprising nucleic acid and amino acid sequence information, including the GenPept bacterial peptide database.

[78] "Gene" refers to the basic unit of heredity that carries the genetic information for a given RNA or protein molecule. A gene is composed of a contiguous stretch of DNA and contains a coding region that is flanked on each end by regions that are transcribed but not translated. A gene is a segment of DNA involved in producing a biologically active or biologically functional polypeptide chain.

[79] "Heterologous" indicates a nucleic acid that comprises two or more subsequences that are not found in the same relationship to each other in nature. For instance, the nucleic acid is typically recombinantly produced, having two or more sequences from unrelated genes arranged to make a new functional nucleic acid, e.g., a promoter from one source and a coding region from another source. Similarly, a heterologous protein indicates that the protein comprises two or more subsequences that are not found in the same relationship to each other in nature (e.g., a fusion protein).

[80] "Hit Threshold" refers to a pre-set E-value or P-value for evaluating sequence matches. For example, this value can be set at  $1e-6$  for finding genes; and at  $1e-15$  for clustering genes.

[81] "Homology" refers to a degree of complementarity. There may be partial homology or complete homology. The word "identity" may substitute for the word "homology." A partially complementary sequence that at least partially, and substantially, inhibits a corresponding sequence from hybridizing to a target nucleic acid is referred to as "substantially homologous." The inhibition of hybridization of the completely complementary sequence to the target sequence may be examined using a hybridization assay (e.g., Southern or Northern blot, *in situ* hybridization, solution hybridization) under conditions of reduced stringency. A substantially homologous sequence or hybridization probe will compete for and inhibit the binding of a completely homologous sequence to the target sequence under stringency conditions that inhibit non-specific binding but permit specific binding. The absence of non-specific binding may be tested by the use of a second target sequence which lacks even a partial degree of complementarity (e.g., less than about 30% homology or identity). In the absence of non-specific binding, the substantially

homologous sequence or probe will not hybridize to the second, non-complementary target sequence.

[82] **"Humanized antibody"** refers to antibody molecules in which the amino acid sequence in the non-antigen-binding regions has been altered so that the antibody more closely resembles a human antibody, and still retains its original binding ability. Typically, humanized antibodies are human immunoglobulins (recipient antibody) in which residues from a complementarity-determining region (CDR) of the recipient are replaced by residues from a CDR of a non-human species (donor antibody) such as mouse, rat or rabbit having the desired specificity, affinity, and capacity. In some instances, Fv framework residues of the human immunoglobulin are replaced by corresponding non-human residues. Furthermore, humanized antibodies may comprise residues that are found neither in the recipient antibody nor in the imported CDR or framework sequences. These modifications are typically made to further refine and optimize antibody performance. In general, the humanized antibody will comprise substantially all of at least one, and typically two, variable domains, in which all or substantially all of the CDR regions correspond to those of a non-human immunoglobulin and all or substantially all of the framework (FR) regions are those of a human immunoglobulin sequence. The humanized antibody optimally also will comprise at least a portion of an immunoglobulin constant region (Fc), typically that of a human immunoglobulin. For further details see, *e.g.*, Jones et al., *Nature*, 321:522-525 (1986); Reichmann et al., *Nature*, 332:323-329 (1988); and, Presta, *Curr. Op. Struct. Biol.*, 2:593-596 (1992).

[83] **"Identity,"** see Homology.

[84] **"Immunocytochemistry"** refers to the use of immunologic methods, including a specific antibody, to study cell constituents.

[85] **"Immunohistochemistry"** refers to the use of immunologic methods, including a specific antibody, to study specific antigens in tissue slices.

[86] **"Immunolocalization"** refers to the use of immunologic methods, including a specific antibody, to locate molecules or structures within cells or tissues.

[87] **"Immunologically active"** refers to the capability of a natural, recombinant, or synthetic GPCR, or any immunogenic fragment thereof, to induce a specific immune response in appropriate animals or cells and to bind with specific antibodies. A polypeptide is "immunologically active" if it is recognized by (*e.g.*, specifically bound by) a B-cell or T-

cell surface antigen receptor. Immunological activity may generally be assessed using well known techniques, such as those summarized in Paul, Fundamental Immunology, 3rd ed., 243-247, Raven Press (1993) and references cited therein. Such techniques include screening polypeptides derived from the native polypeptide for the ability to react with antigen-specific antisera or T-cell lines or clones, which may be prepared in view of the present application using well known techniques. Preferably, an immunologically active portion of a GPCR protein reacts with such antisera or T-cells at a level that is not substantially lower than the reactivity of the full-length polypeptide (e.g., in an ELISA or T-cell reactivity assay). Such screens may generally be performed using methods well known to those of ordinary skill in the art in view of the present application, such as those described in Harlow and Lane, Antibodies: A Laboratory Manual, Cold Spring Harbor Press (1988). B-cell and T-cell epitopes may also be predicted via computer analysis.

[88] "Immune response" refers to any of the body's immunologic reactions to an antigen such as antibody formation, cellular immunity, hypersensitivity, or immunological tolerance.

[89] "Insertion" and "addition" when referring to a change in a nucleotide or amino sequence indicate the addition of one or more nucleotides or amino acid residues, respectively, to the sequence.

[90] "*In situ* hybridization" refers to use of a nucleic acid probe, typically a DNA or RNA probe, to detect the presence of a DNA or RNA sequence in target cells such as cloned bacterial cells, cultured eukaryotic cells, or tissue samples. *In situ* hybridization can also be used for locating genes on chromosomes. The process can be performed by preparing a microscope slide with cells in metaphase of mitosis, then treating slide with a weak base to denature the DNA. Next, pour radioactively labeled probe onto the slide under hybridizing conditions, expose the slide to a photographic emulsion for a suitable period such as a few days or weeks, then develop the emulsion.

[91] "Isoform" refers to different forms of a protein that may be produced from different genes or from the same gene by alternative RNA splicing.

[92] "Isolated" generally means that the material is removed from its original environment (e.g., the natural environment if it is naturally occurring).

[93] "Library" refers physically to a pool of nucleic acid fragments that has been propagated in a cloning vector. Library can also refer to an electronic collection of genomic

or proteomic sequence data, including raw sequences, contigs, ORFs and loci from a specific organism.

[94] "Ligand" refers to an ion or molecule that binds with another molecule, such as a GPCR, to form a macromolecule such as a receptor-ligand complex. An "endogenous  
5 ligand" refers to a native ligand that binds to the receptor of the GPCR and modulates biological activity or functionality of the GPCR in its native environment. A "specific ligand" is a ligand able to bind to a particular GPCR and modulate the biological activity or functionality of the particular GPCR; an endogenous ligand is one example of a specific ligand.

10 [95] "Microarray" refers to an array of distinct nucleic acid or amino acid molecules arrayed on a substrate, such as paper, nylon or any other type of membrane, filter, chip, glass slide, or any other suitable solid support. Microarrays can also refer to tissue microarrays, composed of small tissue pieces arranged on a slide. U.S. Pat. No. 5,143,854 and PCT Patent Publication Nos. WO 90/15070 and 92/10092.

15 [96] "Mimetic" refers to a molecule, *e.g.*, a peptide or non-peptide agent, such as a small molecule, that is able to perform the same biological activity as a certain biologically active agent. For example, some mimetics are molecules comprising the same biological function or activity as the particular GPCR. The structure of the mimetic can be developed from knowledge of the structure of the particular GPCR or portions thereof. For appropriate  
20 mimetics, the mimetic is able to effect some or all of the actions of a given antigenic peptide or antibodies against the antigenic peptide. Such mimetics can be made, in view of the present application, using techniques well known in the art, *see, e.g.*, U.S. Patent Nos. 6,197,752; 6,093,697; 6,207,643; 5,849,323, and can be included in the various processes, methods, and systems, etc., described herein, such as databases, binding partner assays,  
25 probes, medicaments, and therapeutics.

[97] "Modulate" refers to controllably changing the activity of a substance or other item, such as the biological activity of a GPCR, antigenic peptide or corresponding antibody. For example, modulation may cause an increase or a decrease in protein activity, binding characteristics, or other biological, functional, or immunological properties of the GPCR.

30 [98] "Monoclonal antibody" refers to an antibody obtained from a population of substantially homogeneous antibodies, *e.g.*, the individual antibodies comprising the population are identical except for possible naturally occurring mutations that may be present

in minor amounts. Monoclonal antibodies include "chimeric" antibodies (immunoglobulins) in which a portion of the heavy or light chain is identical with or homologous to corresponding sequences in antibodies derived from a particular species or belonging to a particular antibody class or subclass, while the remainder of the chain(s) is identical with or homologous to corresponding sequences in antibodies derived from another species or belonging to another antibody class or subclass, as well as fragments of such antibodies, so long as they exhibit the desired biological activity. U.S. Pat. No. 4,816,567; Morrison et al., P.N.A.S. USA, 81:6851-6855 (1984). Monoclonal antibodies are highly specific, being directed against a single antigenic site. As a matter of distinction, polyclonal antibody preparations typically include different antibodies directed against different determinants (epitopes) of a target antigen whereas each monoclonal antibody is directed against a single determinant on the antigen. Monoclonal antibodies can be synthesized by hybridoma culture, uncontaminated by other immunoglobulins. For example, the monoclonal antibodies to be used in accordance with the present invention may be made by the hybridoma method first described by Kohler and Milstein, Nature, 256:495 (1975), or may be made by recombinant DNA methods. See, e.g., U.S. Pat. No. 4,816,567. Monoclonal antibodies may also be isolated from phage antibody libraries using the techniques described in Clackson et al., Nature, 352:624-628 (1991), and Marks et al., J. Mol. Biol., 222:581-597 (1991), for example. The modifier "monoclonal" indicates the character of the antibody as being obtained from a substantially homogeneous population of antibodies, and is not to be construed as requiring production of the antibody by any particular method.

[99] "Nonconservative" changes to an amino acid sequence, see Analog.

[100] "Northern blotting" or "Northern analysis" refers to a method used to detect specific RNA sequences. For example, the process can be performed by electrophoresing RNA in a denaturing agarose gel, transferring the gel onto a membrane, and hybridizing with a labeled RNA or DNA probe.

[101] "Nucleic acid sequence" refers to a polymer comprising a string of "nucleic acids" such as an oligonucleotide, or a polynucleotide or fragment thereof. The nucleic acid sequence can be from DNA or RNA of genomic or synthetic origin, may be single-stranded or double-stranded, and may represent the sense or the antisense strand. A nucleic acid sequence can also be a PNA or a DNA-like or RNA-like material. Unless stated otherwise,

the term encompasses nucleic acids containing known analogues or mimetics of natural nucleotides that have similar binding properties as the reference nucleic acid.

[102] **"Oligonucleotide"** refers to a nucleic acid sequence, generally between 6 nucleotides to 60 nucleotides, preferably about 15 to 30 nucleotides, and most preferably about 20 to 25 nucleotides, that can, for example, be used in PCR or other nucleic acid amplification or in a hybridization assay or microarray. "Oligonucleotide" includes "amplimers," "primers," "oligomers," and "probes," as these terms are commonly defined in the art. Oligonucleotides can be chemically synthesized. Such synthetic oligonucleotides may have no 5' phosphate and if so will not ligate to another oligonucleotide without adding a phosphate, typically by using an ATP in the presence of a kinase. A synthetic oligonucleotide will ligate to a fragment that has not been dephosphorylated.

[103] **"Operably linked"** or **"operably connected"** indicates that one element of an apparatus, system, or method, etc., is connected to another element of the apparatus, system, or method, etc., such that the two elements are able to perform their intended purposes. For example, when a promoter is linked to a polynucleotide to allow transcription of the polynucleotide, it is "operably linked" to the polynucleotide.

[104] **"Orphan receptor"** refers to a receptor for which the endogenous ligand or other ligands inducing biological activity are not known.

[105] **"PCR"** or **"polymerase chain reaction"** refers to an *in vitro* method that uses oligonucleotide primers, enzymes, and a series of repetitive temperature cycles to generate millions of copies of a nucleic acid, typically DNA, from an original specimen of a specific DNA sequence, which specimen may be present only in a trace amount.

[106] **"Plasmids"** refers to extrachromosomal genetic elements composed of DNA or RNA found in both eukaryotic and prokaryotic cells that can propagate themselves autonomously in cells. Plasmids can be used as carriers or vectors to clone DNA molecules. They are designated by a lower case p preceded or followed by capital letters or numbers. The starting plasmids herein are either commercially available, publicly available on an unrestricted basis, or can be constructed from available plasmids in accord with published procedures. In addition, equivalent plasmids to those described are known in the art and will be apparent to the ordinarily skilled artisan in view of the present application.

[107] **"Polynucleotide encoding a polypeptide"** indicates a polynucleotide that includes only the coding sequence for the polypeptide as well as polynucleotides that include additional coding or non-coding sequence.

[108] **"Portion"** or **"fragment"** with regard to a protein (as in "a portion of a given protein") refers to parts of that protein, a subsequence of the complete amino acid sequence of the receptor containing at least about 8, usually at least about 12, more typically at least about 20, and commonly at least about 30 or more contiguous amino acid residues, up to the entire amino acid sequence minus one amino acid. Thus, a protein "comprising at least a portion of the amino acid sequence of SEQ ID NO:XX" or a protein "comprising at least a portion of the amino acid sequence of a particular GPCR" encompasses the full-length protein and fragments thereof. A portion or fragment of a nucleic acid refers to nucleic acid sequences that are greater than about 12 nucleotides in length, and typically at least about 60 or 100 nucleotides, generally at least about 1000 nucleotides, or at least about 10,000 nucleotides in length, up to the entire nucleic acid sequence minus one nucleic acid.

[109] **"P-value"** is a statistical term used to indicate the probability that an event is due to random chance. When used in reference to a result of BLAST searches, the number indicates the probability that a match between two sequences is due to random chance.

[110] **"Receptor"** refers to a molecular structure, typically within a cell or on a cell surface, that selectively binds a specific substance (a ligand) and a specific physiologic effect that accompanies the binding. GPCRs are a type of cell-surface receptor, which means a protein in, on, or traversing the cell membrane (in the case of GPCRs, traversing the cell membrane) that recognizes and binds to specific molecules in the surrounding fluid. The binding to a receptor may serve to transport molecules into the cell's interior or to signal the cell to respond in some way.

[111] **"Recombinant"** refers to both a method of production and a structure. Some recombinant nucleic acids and proteins are made by the use of recombinant DNA techniques that involve human intervention, either in manipulation or selection. Others are made by fusing two fragments that are not naturally contiguous to each other. Engineered vectors are encompassed, as well as nucleic acids comprising sequences derived using any synthetic oligonucleotide process.

[112] **"Sample"** is used in its usual broad sense. For example, a biological sample suspected of containing nucleic acids encoding the GPCR, or fragments thereof, or the GPCR



itself, may comprise a bodily fluid; an extract from a cell, chromosome, organelle, or membrane from a cell; a cell; genomic DNA, RNA, or cDNA (in solution or bound to a solid support); a tissue; a tissue print, and the like. Biological sample refers to samples from a healthy individual as well as to samples from a subject suspected of having or susceptible to having, *e.g.*, immune-related diseases, cell growth-related diseases, cell regeneration-related diseases, immunological-related cell proliferative diseases, and autoimmune diseases. Examples of specific diseases include AIDS, allergies, Alzheimer's disease, amyotrophic lateral sclerosis, atherosclerosis, bacterial, fungal, protozoan and viral infections, benign prostatic hypertrophy, bone diseases (*e.g.*, osteoarthritis, osteoporosis), carcinoma (*e.g.*, basal cell carcinoma, breast carcinoma, embryonal carcinoma, ovarian carcinoma, renal cell carcinoma, lung adenocarcinoma, lung small cell carcinoma, pancreatic carcinoma, prostate carcinoma, transitional carcinoma of the bladder, squamous cell carcinoma, thyroid carcinoma), cardiomyopathy, chronic and acute inflammation, circadian rhythm disorders, COPD, Crohn's disease, diabetes, Duchenne muscular dystrophy, embryonal carcinoma, endotoxic shock, environmental stress (*e.g.*, by heat, UV or chemicals), gastrointestinal disorders, glioblastoma multiform, graft vs. host disease, Hodgkin's disease, inflammatory bowel disease, ischemia, stroke, lymphoma, macular degeneration, malignant cytokine production, malignant fibrous histiocytoma, melanoma, meningioma, mesothelioma, multiple sclerosis, nasal congestion, pain, Parkinson's disease, prostate carcinoma, psoriasis, rhabdomyosarcoma, psychotic or neurological disorders (*e.g.*, anxiety, depression, schizophrenia, dementia, mental retardation, memory loss, epilepsy, locomotor problems, respiratory disorders, asthma, eating/body weight disorders including obesity, bulimia, diabetes, anorexia, nausea, hypertension, hypotension), renal disorders, reperfusion injury, rheumatoid arthritis, sarcoma (*e.g.*, chondrosarcoma, Ewing's sarcoma, osteosarcoma), septicemia, seminoma, sexual/reproductive disorders, tonsil, transitional carcinoma of the bladder, transplant rejection, trauma, tuberculosis, ulcers, ulcerative colitis, urinary retention, vascular and cardiovascular disorders, or any other disease or disorder in which G protein-coupled receptors are involved, as well as learning and/or memory disorders, diabetes, pain perception disorders, anorexia, obesity, hormonal release problems, or any other disease or disorder in which a specific GPCR is involved.

[113] "Second messengers" refer to intracellular signaling molecules such as cyclic AMP (cAMP), inositol triphosphate, diacylglycerol, or  $\text{Ca}^{2+}$ . Second messengers, in turn, alter the

activity of other intracellular proteins such as cAMP-dependent protein kinase and  $\text{Ca}^{2+}$ /calmodulin-dependent protein kinases, leading to the transduction and amplification of the original extracellular signal.

[114] "Southern blotting" refers to a method for detecting specific DNA sequences via hybridization. For example, a DNA sample can be electrophoresed in a denaturing agarose gel, transferred onto a membrane, and hybridized with a complementary nucleic acid probe. "Southern" when used in reference to a database indicates an electronic analog of the laboratory technique, which analysis can be used to identify libraries in which a given DNA sequence, such as a gene, EST, or ORF is present. The terms "Northern" and "Western" likewise can be used for electronic analogs to the respective laboratory techniques described above.

[115] "Specific binding" or "specifically binding" refers to an interaction between protein or peptide and a certain substance, such as its specific ligand or antibody, and in some cases its agonists or antagonists. The interaction is dependent upon the presence of a particular structure of the protein recognized by the binding molecule (*e.g.*, the antigenic determinant or epitope). For example, if an antibody specifically binds epitope "A," the presence of a polypeptide containing epitope A or the presence of free unlabeled epitope A will reduce the amount of labeled epitope A that binds to the antibody in a reaction containing free labeled epitope A and the antibody. Conversely, the presence of a polypeptide that does not contain epitope A will not reduce the amount of labeled epitope A that binds to the antibody. Highly specific binding indicates that the protein or peptide binds to its particular ligand, antibody, etc., and does not bind in a significant amount to other proteins present in the sample. Typically, a specific or selective reaction will be at least twice the background signal or noise and more typically more than 10 to 100 times the background signal or noise.

[116] "Stringent conditions" refer to conditions that permit hybridization between complementary polynucleotide sequences. Suitably stringent conditions can be defined by, for example, the concentrations of salt or formamide in the prehybridization and hybridization solutions, or by the hybridization temperature. Stringency can be increased by reducing the concentration of salt, increasing the concentration of formamide, or raising the hybridization temperature. Stringent conditions are dependent upon the type of probe as well as the length of the probe and the GC content of the probe. "Stringent conditions" typically

occur within a range from about  $T_m - 5^\circ\text{C}$  ( $5^\circ\text{C}$  below the melting temperature ( $T_m$ ) of the probe) to about  $T_m - 20 - 25^\circ\text{C}$  for a cRNA probe and to about  $T_m - 15^\circ\text{C}$  for an oligonucleotide probe. **"Highly stringent conditions"** refers to conditions under which a probe will hybridize to its target sequence, typically in a complex mixture of nucleic acid sequences, but will not substantially hybridize to other sequences. One example of high stringency conditions for a cRNA probe that is 1,000 nucleotides in length and has a GC content of about 60% is about  $55 - 65^\circ\text{C}$  in 50% formamide, 0.1 X SSC, and 200  $\mu\text{g/ml}$  sheared and denatured salmon sperm DNA. One example of low stringency conditions for the same probe in 50% formamide, 0.1 X SSC, and 200  $\mu\text{g/ml}$  sheared and denatured salmon sperm DNA would be  $30 - 35^\circ\text{C}$ . **"Very highly stringent conditions"** indicates that there must be complete identity between the sequences. The temperature range corresponding to a particular level of stringency can be narrowed further by calculating the purine to pyrimidine ratio of the nucleic acid of interest and adjusting the temperature accordingly. Variations on and modifications of the above ranges and conditions will be readily appreciated by those of skill in the art in view of the present application. As will be understood by those of skill in the art in view of the present application, the stringency of hybridization can be altered to identify or detect identical or related polynucleotide sequences. One guide for nucleic acid hybridization is Tijssen, Laboratory Techniques in Biochemistry and Molecular Biology-v.24 Hybridization with Nucleic Acid Probes, Part I "Overview of principles of hybridization and the strategy of nucleic acid assays" (New York: Elsevier 1993).

[117] **"Substantially purified"** refers to nucleic acid or amino acid sequences that are removed from their natural environment and are separated from other components from such natural environment, and are at least about 60% free, preferably about 75% or 85% free, and most preferably about 90%, 95% or 99% free from such other components with which they are naturally associated. Substantially purified preferably indicates a substantially homogeneous state and can be in either a dry or aqueous solution or other composition as desired. Purity and homogeneity can be assayed by standard methods, for example on a mass or molar basis, using analytical chemistry techniques such as polyacrylamide gel electrophoresis or high performance liquid chromatography.

[118] "Substitution" when referring to a change in a nucleotide or amino sequence indicates the replacement of one or more nucleotides or amino acids by different nucleotides or amino acids, respectively.

[119] "Variant," see Analog.

5 [120] "Western blotting" or "Western analysis" refers to a method for detecting specific protein sequences. For example, the process can be performed by electrophoresing a protein mixture in a denaturing agarose or acrylamide gel, transferring the mixture onto a membrane, and incubating it with an antibody raised against the protein of interest.

[121] Other terms and phrases are defined in other portions of this application.

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### C. SELECTION OF DESIRED ANTIGENIC PEPTIDES FOR GPCRs AND OTHER POLYPEPTIDES

[122] The present invention provides improved antigenic peptides, for example as set forth in Figure 2, SEQ ID NOS. 692-2292, and improved methods of identifying such  
15 antigenic peptides from known or publicly available sequences of polypeptides or proteins, i.e., from a candidate polypeptide sequence. Polypeptide and protein are used in their traditional sense to indicate lengthy amino acid molecules, whereas the antigenic peptide has a length significantly less than the length of the corresponding polypeptide or protein such that the antigenic peptide is capable of providing significantly improved antigenicity relative  
20 to the corresponding polypeptide or protein, typically improved specificity, affinity or avidity. The candidate polypeptide can be, for example, a human protein or polypeptide, a naturally occurring protein or polypeptide or a synthetic or recombinant protein or polypeptide.

[123] The antigenic peptides are typically 5 to about 100 amino acids in length, preferably  
25 6 to about 50 amino acids, and further preferably 7 to about 20 amino acids. The antigenic peptides include short antigenic amino acid sequences (i.e., peptides comprising only a portion of an antigenic sequence as set forth in Figure 2 or as identified using the methods described herein, plus an insignificant number of additional amino acids at one or both ends, where insignificant indicates that the extra amino acids do not substantially interfere with the  
30 antigenicity of the antigenic peptide). Such short antigenic peptides can be identical to at least 5, 6, 7 or more consecutive amino acids of the sequences herein or identified using the methods described herein, or can have one or two (or more, with increasing length)

conservative amino acid substitution for antigenic peptides comprising more than 6 or 7 consecutive amino acids of the sequences herein or identified using the methods described herein. Antigenic peptides and sequences, and related antibodies and assays and the like, are discussed further elsewhere herein with regard to GPCRs, but such discussions applies to all  
5 antigenic peptides produced according to the methods herein, including proteins and polypeptides such as kinases, phosphatases and any other desired protein or polypeptide.

[124] The identification or selection methods comprise searching the candidate polypeptide sequence using a comparison window of the desired length, then selecting against or rejecting amino acid sequences of the length and having at least 1 characteristic  
10 selected from the group consisting of 1) at least two consecutive prolines, 2) at least two consecutive serines, 3) at least two consecutive lysines, 4) at least two consecutive arginines, 5) at least two consecutive aspartic acids, 6) at least two consecutive glutamic acids, 7) methionine, 8) tryptophan, and 9) at least five consecutive amino acids comprising no charged amino acids. Preferably, at least 5, 7, 8, or all of the characteristics are selected.

15 [125] The identification or selection methods can also comprise selecting against amino acid sequences having at least 5 consecutive amino acids that are identical to an alternative amino acid sequence from an alternative polypeptide, i.e., some polypeptide other than the candidate polypeptide from which the selected antigen was derived, that is different from the candidate polypeptide, posttranslational modification sites, or highly hydrophobic sequences,  
20 which indicates sequences adequately hydrophobic to be located in a lipid membrane such as a cellular membrane. The posttranslational modification sites can be phosphorylation or glycosylation sites.

[126] The methods can further comprise performing a BLAST-type or a FAST-type analyses for the candidate polypeptide sequence. Exemplary BLAST-type and FAST-type  
25 analyses are described above, including BLAST, BLASTP, BLASTX, FASTA, and FASTX.

#### D. GENERAL DISCUSSION OF ANTIGENIC PEPTIDES RELATED TO PARTICULAR GPCRS

##### [127] ANTIGENIC PEPTIDES GENERALLY:

30 [128] The present invention includes antigenic peptides able to induce specific immunogenic responses, and corresponding binding partners. Such antigenic peptides and

binding partners can be cloned, expressed, isolated, purified, and otherwise obtained or manipulated according to routine methods known in the art in view of the present application.

[129] The present invention further relates to antigenic peptides having an amino acid sequence from a particular GPCR, including analogs, mimetics, fragments, derivatives, and the like of such antigenic peptides. See SEQ ID NOS. 1-2292, Figures 1-3. The antigenic peptides may be recombinant, natural or synthetic. The antigenic peptides include (i) antigenic peptides in which one or more of the amino acid residues are substituted with a conserved or non-conserved amino acid residue (preferably a conserved amino acid residue) and such substituted amino acid residue may or may not be one encoded by the genetic code, (ii) antigenic peptides in which one or more of the amino acid residues includes a substituent group, (iii) antigenic peptides in which the mature polypeptide is complexed (*e.g.*, fused or otherwise bonded) with another compound, such as a compound to increase the half-life of the polypeptide (for example, polyethylene glycol), and (iv) antigenic peptides in which additional amino acids are fused to the antigenic peptide. Preparing and using such analogs, etc., are within the scope of those skilled in the art in view of the present application. The antigenic peptides additionally include antigenic peptides that have at least about 90% identity to the given antigenic peptide, and preferably at least about 95% identity to the antigenic peptide. The antigenic peptides additionally include antigenic peptides that contain at least five, six, seven or more consecutive amino acids that are identical to the given antigenic peptide, as well as antigenic peptides that contain at least six, seven, eight or more consecutive amino acids that are identical to the given antigenic except for one or two conservative changes within this such stretch of amino acids. The antigenic peptides of the present invention can be produced by peptide synthesis.

**[130] EXPRESSION PROFILES BASED ON PROTEINS:**

[131] An expression profile of a particular GPCR in one or more tissues can be made using antibodies or other binding partners produced using the antigenic peptides herein, then using traditional approaches such as Western blotting, immunohistochemistry analysis, protein array, ligand-binding studies, radioimmunoassay (RIA), and high performance liquid chromatography (HPLC), and immunohistochemistry analysis. H&E staining and other analyses can be used in combination with such immunologically-based analyses.

**[132] SCREENING FOR ACTIVITY:**

[133] The activity or functionality of an antigenic peptide can be measured using any of a variety of assays known in the art. Similarly, the specificity or affinity of an antibody or other binding partner made using the antigenic peptide can be measured using any of a variety of assays known in the art

- 5 [134] The activity or functionality of a particular GPCR may be measured using any of a variety of functional assays in which activation of the receptor in question results in an observable change in the level of some second messenger system, including but not limited to adenylyl cyclase, calcium mobilization, arachidonic acid release, ion channel activity, inositol phospholipid hydrolysis, or guanylyl cyclase. Heterologous expression systems utilizing  
10 appropriate host cells to express the nucleic acid of the subject invention are used to obtain the desired second messenger coupling. Receptor activity may also be assayed in an oocyte expression system.

**[135] PROTEIN PURIFICATION:**

- [136] The antigenic peptides and proteins or polypeptides containing them can be purified  
15 by standard methods, including but not limited to salt or alcohol precipitation, preparative disc-gel electrophoresis, isoelectric focusing, high pressure liquid chromatography (HPLC), reversed-phase HPLC, gel filtration, cation and anion exchange, partition chromatography, and countercurrent distribution. Suitable purification methods will be readily apparent to those skilled in the art in view of the present application and are disclosed, *e.g.*, in Guide to  
20 Protein Purification, Methods in Enzymology, Vol. 182, M. Deutscher, Ed., Academic Press, New York, NY (1990). Purification steps can be followed as part of carrying out assays for ligand binding activity. Particularly where a particular GPCR is being isolated from a cellular or tissue source, it is preferable to include one or more inhibitors of proteolytic enzymes in the assay system, such as phenylmethylsulfonyl fluoride (PMSF).

25

**E. CERTAIN ASSAYS, ANTIBODIES, PROBES, THERAPEUTICS, AND OTHER SYSTEMS AND ASPECTS, OF THE INVENTION**

**1. SYSTEMS AND METHODS FOR SCREENING FOR A PARTICULAR GPCR OR ANTIGENIC PEPTIDE**

- 30 [137] **SCREENING FOR ANTIGENIC PEPTIDES:**

[138] As noted elsewhere herein, the present invention provides antigenic peptides and antibodies that are specific for a particular GPCR. The invention also provides systems and

methods for using or detecting such peptides, and antibodies against such peptides or corresponding GPCRs in a sample. The assays are based on the detection of the antigenic peptides, typically as they are displayed by the particular GPCR, or the detection of antibodies produced against the particular antigenic peptides and corresponding GPCRs.

5 **[139] SCREENING FOR/WITH ANTIGENIC PEPTIDES:**

**[140]** Many assays are characterized by the ability of antigenic peptides for a particular GPCR to be bound by antibodies against them, and the ability of antibodies produced against such antigenic peptides to bind to antigens or epitopes of the particular GPCR in a sample. Some exemplary assays are described below and elsewhere herein.

10 **[141] LIST OF ASSAYS:**

**[142]** A variety of assays can detect antibodies that bind specifically to the desired protein in or from a sample, or detect a desired protein bound to one or more antibodies in or from the sample. Exemplary assays are described in detail in *Antibodies: A Laboratory Manual*, Harlow and Lane (eds.), Cold Spring Harbor Laboratory Press (1988). Representative  
15 examples of such assays include: countercurrent immuno-electrophoresis (CIEP), radioimmunoassays, radioimmunoprecipitations, enzyme-linked immunosorbent assays (ELISA), dot blot assays, inhibition or competition assays, sandwich assays, immunostick (dip-stick) assays, simultaneous assays, immunochromatographic assays, immunofiltration assays, latex bead agglutination assays, immunofluorescent assays, biosensor assays, and  
20 low-light detection assays. See U.S. Pat. Nos. 4,376,110 and 4,486,530; WO 94/25597; WO/25598.

**[143] ENZYME-LINKED IMMUNOSORBENT ASSAYS (ELISA):**

**[144]** One assay for the detection of a particular GPCR is a sandwich assay such as an enzyme-linked immunosorbent assay (ELISA). In one preferred embodiment, the ELISA  
25 comprises the following steps: (1) coating the particular GPCR antigenic peptide onto a solid phase, (2) incubating a sample suspected of containing anti-particular GPCR antibodies with the antigenic peptide coated onto the solid phase under conditions that allow the formation of an antigen-antibody complex, (3) adding an anti-antibody (such as anti-IgG) conjugated with a label to be captured by the resulting antigen-antibody complex bound to the solid phase,  
30 and (4) measuring the captured label and determining therefrom whether the sample contains anti-particular GPCR antibodies.

**[145] IMMUNOFLUORESCENCE ASSAY:**



[146] A fluorescent antibody test (FA-test) uses a fluorescently labeled antibody able to bind to one of the proteins of the invention. For detection, visual determinations are made by a technician using fluorescence microscopy, yielding a qualitative result. In one embodiment, this assay is used for the examination of tissue samples or histological sections.

5 [147] **BEAD AGGLUTINATION ASSAYS:**

[148] In latex bead agglutination assays, antibodies to one or more of the antigenic peptides of the present invention are conjugated to latex beads. The antibodies conjugated to the latex beads are then contacted with a sample under conditions permitting the antibodies to bind to desired proteins in the sample, if any. The results are then read visually, yielding a qualitative result. In some embodiments, as with certain other assays, this format can be used in the field for on-site testing.

[149] **ENZYME IMMUNOASSAYS:**

[150] Enzyme immunoassays (EIA) include a number of different assays that can use the antibodies described in the present application. For example, a heterogeneous indirect EIA uses a solid phase coupled with an antibody of the invention and an affinity purified, anti-IgG immunoglobulin preparation. The solid phase can be a polystyrene microtiter plate. The antibodies and immunoglobulin preparation are then contacted with the sample under conditions permitting antibody binding, which conditions are well known in the art. The results of such an assay can be read visually or using a device such as a spectrophotometer, such as an ELISA plate reader, to yield a quantitative result. An alternative solid phase EIA format includes plastic-coated ferrous metal beads able to be moved during the procedures of the assay by means of a magnet. Yet another alternative is a low-light detection immunoassay format. In this highly sensitive format, the light emission produced by appropriately labeled bound antibodies are quantified automatically. Preferably, the reaction is performed using microtiter plates.

[151] In an alternative embodiment, a radioactive tracer is substituted for the enzyme-mediated detection in an EIA to produce a radioimmunoassay (RIA).

[152] **SANDWICH ASSAY:**

[153] In a capture-antibody sandwich enzyme assay, the desired protein is bound between an antibody attached to a solid phase, preferably a polystyrene microtiter plate, and a labeled antibody. The results can be measured, for example, using a spectrophotometer, such as an ELISA plate reader.

**[154] SEQUENTIAL AND SIMULTANEOUS ASSAYS:**

[155] In a sequential assay format, reagents are allowed to incubate with the capture antibody in a stepwise fashion. The test sample is first incubated with the capture antibody. Following a wash step, incubation with the labeled antibody occurs. In a simultaneous assay, the two incubation periods described in the sequential assay are combined. This eliminates one incubation period plus a wash step.

**[156] IMMUNOSTICK (DIP-STICK) ASSAYS:**

[157] A dipstick/immunostick format is essentially an immunoassay using a polystyrene paddle or dipstick instead of a polystyrene microtiter plate as the solid phase. Reagents are the same and the format can either be simultaneous or sequential.

**[158] IMMUNOCHROMATOGRAPHIC ASSAYS:**

[159] In a chromatographic strip test format, a capture antibody and a labeled antibody are dried onto a chromatographic strip, which typically comprises nitrocellulose or high porosity nylon bonded to cellulose acetate. The capture antibody is usually spray dried as a line at one end of the strip. At this end, there is an absorbent material that is in contact with the strip. At the other end of the strip, the labeled antibody is deposited in a manner that prevents it from being absorbed onto the membrane. Usually, the label attached to the antibody is a latex bead or colloidal gold. The assay may be initiated by applying the sample immediately in front of the labeled antibody.

**[160] IMMUNOFILTRATION ASSAYS:**

[161] Immunofiltration/immunoconcentration formats combine a large solid-phase surface with directional flow of sample/reagents, which concentrates and accelerates the binding of antigen to antibody. In an exemplary format, the test sample is preincubated with a labeled antibody, and then applied to a solid phase such as fiber filters, nitrocellulose membranes, or the like. The solid phase can also be precoated with latex or glass beads coated with capture antibody. Detection of analyte is the same as that in a standard immunoassay. The flow of sample/reagents can be modulated by either vacuum or the wicking action of an underlying absorbent material.

**[162] BIOSENSOR ASSAYS:**

[163] A threshold biosensor assay is a sensitive, instrumented assay amenable to screening large numbers of samples at low cost. In one embodiment, such an assay comprises the use of light-addressable potentiometric sensors wherein the reaction involves

the detection of a pH change due to binding of the desired protein by capture antibodies, bridging antibodies, and urease-conjugated antibodies. Upon binding, a pH change is effected that is measurable by translation into electrical potential ( $\mu$ volts). The assay typically occurs in a very small reaction volume, and is very sensitive; the reported detection  
5 limit of the assay is 1,000 molecules of urease per minute.

## 2. ANTIBODIES

### **[164] ANTIBODIES GENERATED AGAINST A PARTICULAR ANTIGENIC PEPTIDE AND ITS CORRESPONDING GPCR:**

10 **[165]** Highly specific, high affinity or antibodies against a particular GPCR or other polypeptide can be generated using the antigenic peptides herein and using antibody generation techniques as described herein or elsewhere. The antibodies produced using the antigenic peptides of the present invention, for example, have a specificity for the corresponding GPCR such that the antibodies can selectively detect the corresponding GPCR  
15 in a sample containing non-desired or contaminating proteins or polypeptides, such as a tissue or blood sample. Preferably, the antibodies have a high specificity such that no significant amounts of such proteins or polypeptides are detected, and further preferably have a specificity such that only insubstantial to essentially zero amounts of non-desirable proteins are detected. The antibodies produced using the antigenic peptides of the present invention,  
20 for example, typically have an affinity or avidity constant ( $K_a$ ) of at least about  $10^7$  liters/mole, typically a high affinity or avidity at least about  $10^9$  liters/mole, preferably at least about  $10^{10}$  liters/mole, and further preferably at least about  $10^{11}$  liters/mole.

**[166]** The antibodies can be used to conduct immunohistochemistry and other analyses of a variety of tissue samples to determine expression of a particular GPCR in such tissues, for  
25 diagnostic assays, and for other desired purposes. The specification will now discuss a variety of antibody types, methods, uses, etc.

### **[167] ANTIBODIES GENERALLY:**

**[168]** In some embodiments, the present invention provides antibodies and other binding partners created using the antigenic peptides herein and directed to a particular GPCR from  
30 which the antigenic peptides were derived. Compositions and uses for such antibodies are contemplated, including diagnostic, medicament, and therapeutic uses. Various diagnostic, medicament, and therapeutic uses for antibodies have been reviewed above and, for example,

in Goldenberg et al., Semin. Cancer Biol., 1(3):217-225 (1990); Beck et al., Semin. Cancer Biol., 1(3):181-188 (1990); Niman, Immunol. Ser., 53:189-204 (1990); Endo, Nippon Igaku Hoshasen Gakkai Zasshi (Japan), 50(8):901-909 (1990); and, U.S. Pat. No. 6,214,984.

[169] Recognized immunoglobulin genes include the kappa, lambda, alpha, gamma, delta, epsilon, and mu constant region genes, as well as myriad immunoglobulin variable region genes. Light chains are classified as either kappa or lambda. Heavy chains are classified as gamma, mu, alpha, delta, or epsilon, which in turn define the immunoglobulin classes, IgG, IgM, IgA, IgD, and IgE, respectively. An exemplary immunoglobulin (antibody) structural unit comprises a tetramer. Each tetramer is composed of two identical pairs of antigenic peptide chains, each pair having one "light" chain (about 25 kD) and one "heavy" chain (about 50-70 kD). The N-terminus of each chain defines a variable region of about 100 to 110 or more amino acids primarily responsible for antigen recognition. The terms variable light chain ( $V_L$ ) and variable heavy chain ( $V_H$ ) refer to these light and heavy chains respectively.

15 [170] **ANTI-IDIOTYPIC ANTIBODIES:**

[171] The present invention encompasses anti-idiotypic antibodies, including polyclonal and monoclonal anti-idiotypic antibodies, that are produced using the antibodies described herein as antigens. These anti-idiotypic antibodies are useful because they may mimic the structures of the antigenic peptides set forth herein.

20 [172] Techniques for producing antibodies, including antibody fragments, include the following.

a. Antibody Preparation

(i) Polyclonal Antibodies

25 [173] **ANTIBODY PREP - POLYCLONAL:**

[174] Polyclonal antibodies are generally raised in animals by multiple subcutaneous (sc) or intraperitoneal (ip) injections of the relevant antigen and an adjuvant. It may be useful to conjugate the relevant antigen to a protein that is immunogenic in the species to be immunized, *e.g.*, keyhole limpet hemocyanin, serum albumin, bovine thyroglobulin, or soybean trypsin inhibitor, using a bifunctional or derivatizing agent, for example, 30 maleimidobenzoyl sulfosuccinimide ester (conjugation through cysteine residues), N-

hydroxysuccinimide (through lysine residues), glutaraldehyde, succinic anhydride,  $\text{SOCl}_2$ , or  $\text{R}^1\text{N}=\text{C}=\text{NR}$ , where R and  $\text{R}^1$  are different alkyl groups.

**[175] ANTIBODY PREP – ADJUVANTS (ALL ABS):**

[176] Suitable adjuvants for the vaccination of animals for the production of polyclonal, monoclonal, and other antibodies include but are not limited to Adjuvant 65 (containing peanut oil, mannide monooleate, and aluminum monostearate); Freund's complete or incomplete adjuvant; mineral gels such as aluminum hydroxide, aluminum phosphate, and alum; surfactants such as hexadecylamine, octadecylamine, lysolecithin, dimethyldioctadecylammonium bromide, N,N-dioctadecyl-N',N'-bis(2-hydroxymethyl)propanediamine, methoxyhexadecylglycerol, and pluronic polyols; polyanions such as pyran, dextran sulfate, poly IC, polyacrylic acid, and carbopol; peptides such as muramyl dipeptide, dimethylglycine, tuftsin, stress proteins, core-containing proteins from a positive stranded RNA virus, *see* US Pat. No. 6,153,378; and, oil emulsions. The antigenic peptides could also be administered following incorporation into liposomes or other microcarriers.

[177] Information concerning adjuvants and various aspects of immunoassays are disclosed, *e.g.*, in the series by P. Tijssen, Practice and Theory of Enzyme Immunoassays, 3rd Edition (1987), Elsevier, New York. Other useful references covering methods for preparing polyclonal antisera include Microbiology, Hoeber Medical Division, Harper and Row (1969); Landsteiner, Specificity of Serological Reactions, Dover Publications, New York (1962); and, Williams, et al., Methods in Immunology and Immunochemistry, Vol. 1, Academic Press, New York (1967).

[178] Animals can be immunized against the antigen, immunogenic conjugates, or derivatives by combining 1 mg or 1  $\mu\text{g}$  of the peptide or conjugate (for rabbits or mice, respectively) with 3 volumes of Freund's complete adjuvant and injecting the solution intradermally at multiple sites. One month later the animals are boosted with 1/5 to 1/10 the original amount of peptide or conjugate in Freund's complete adjuvant by subcutaneous injection at multiple sites. Seven to 14 days later the animals are bled and the serum is assayed for antibody titer. Animals are boosted until the titer plateaus. Preferably, the animal is boosted with the conjugate of the same antigen, but conjugated to a different protein or through a different cross-linking reagent. Conjugates also can be made in recombinant cell culture as protein fusions. In addition, aggregating agents such as alum can be suitably used to enhance the immune response.

## (ii) Monoclonal Antibodies

**[179] ANTIBODY PREP - MONOCLONAL:**

**[180]** Monoclonal antibodies are obtained from a population of substantially homogeneous antibodies, *e.g.*, the individual antibodies comprising the population are identical except for possible naturally occurring mutations that may be present in minor amounts. For example, monoclonal antibodies can be made using the hybridoma method first described by Kohler and Milstein, *Nature*, 256:495 (1975), or can be made by recombinant DNA methods, or otherwise as desired.

**[181]** In the hybridoma method, a mouse, or other appropriate host animal, such as a hamster, is immunized as described herein to elicit lymphocytes that produce or are capable of producing antibodies that will bind specifically to the antigenic peptide used for immunization. Alternatively, lymphocytes may be immunized *in vitro*. Lymphocytes then are fused with myeloma cells using a suitable fusing agent, such as polyethylene glycol, to form a hybridoma cell, Goding, *Monoclonal Antibodies: Principles and Practice*, pp. 59-103, Academic Press (1986).

**[182]** The hybridoma cells thus prepared are seeded and grown in a suitable culture medium that preferably contains one or more substances that inhibit the growth or survival of the unfused, parental myeloma cells. For example, if the parental myeloma cells lack the enzyme hypoxanthine guanine phosphoribosyl transferase (HGPRT or HPRT), the culture medium for the hybridomas typically will include hypoxanthine, aminopterin, and thymidine (HAT medium), which substances prevent the growth of HGPRT-deficient cells.

**[183]** Preferred myeloma cells are those that fuse efficiently, support stable high-level production of antibody by the selected antibody-producing cells, and are sensitive to a medium such as HAT medium, for example murine myeloma lines, such as those derived from MOPC-21 and MPC-11 mouse tumors available from the Salk Institute Cell Distribution Center, San Diego, CA USA, and SP-2 cells available from the American Type Culture Collection, Rockville, MD USA. Human myeloma and mouse-human heteromyeloma cell lines have also been described for the production of human monoclonal antibodies, Kozbor, *J. Immunol.*, 133:3001 (1984); Brodeur et al., *Monoclonal Antibody Production Techniques and Applications*, pp. 51-63, Marcel Dekker, Inc., New York (1987).

[184] Culture medium in which hybridoma cells are growing is assayed for production of monoclonal antibodies directed against the antigenic peptide. The binding specificity of monoclonal antibodies produced by hybridoma cells can be determined by immunoprecipitation or by an *in vitro* binding assay, such as radioimmunoassay (RIA) or enzyme-linked immunosorbent assay (ELISA). The binding affinity of the monoclonal antibody can, for example, be determined by the Scatchard analysis of Munson and Pollard, Anal. Biochem., 107:220 (1980). The antibodies produced using the antigenic peptides of the present invention, for example, typically have an affinity or avidity constant ( $K_a$ ) of at least about  $10^7$  liters/mole, typically a high affinity or avidity at least about  $10^9$  liters/mole, preferably at least about  $10^{10}$  liters/mole, and further preferably at least about  $10^{11}$  liters/mole.

[185] After hybridoma cells are identified that produce antibodies of the desired specificity, affinity, or activity, the clones may be subcloned by limiting dilution procedures and grown by standard methods (Goding, *supra*). Suitable culture media for this purpose include, for example, D-MEM or RPMI-1640 medium. In addition, the hybridoma cells may be grown *in vivo* as ascites tumors in an animal.

[186] The monoclonal antibodies secreted by the subclones are suitably separated from the culture medium, ascites fluid, or serum by conventional immunoglobulin purification procedures such as, for example, protein A-SEPHAROSE<sup>TM</sup>, hydroxyapatite chromatography, gel electrophoresis, dialysis, or affinity chromatography.

[187] DNA encoding the monoclonal antibodies can be readily isolated and sequenced using conventional procedures (*e.g.*, by using oligonucleotide probes that are capable of binding specifically to genes encoding the heavy and light chains of murine antibodies). The hybridoma cells serve as a preferred source of such DNA. Once isolated, the DNA may be placed into expression vectors, which can then be transfected into host cells such as *E. coli* cells, simian COS cells, Chinese hamster ovary (CHO) cells, or myeloma cells that do not otherwise produce immunoglobulin protein, to obtain the synthesis of monoclonal antibodies in the recombinant host cells. Review articles on recombinant expression in bacteria of DNA encoding antibody include Skerra et al., Curr. Opinion in Immunol., 5:256-262 (1993), and Pluckthun, Immunol. Revs., 130:151-188 (1992).

[188] **MOABS - COMBINATORIAL:**

[189] In a further embodiment, antibodies or antibody fragments can be isolated from antibody phage libraries generated using the techniques described in McCafferty et al.,

Nature, 348:552-554 (1990), using the proper antigen such as CD11a, CD18, IgE, or HER-2 to select for a suitable antibody or antibody fragment. Clackson et al., Nature, 352:624-628 (1991) and Marks et al., J. Mol. Biol., 222:581-597 (1991) describe the isolation of murine and human antibodies, respectively, using phage libraries. Subsequent publications describe the production of high affinity (nM range) human antibodies by chain shuffling, Marks et al., Biotechnology, 10:779-783 (1992), as well as combinatorial infection and *in vivo* recombination as strategies for constructing very large phage libraries, Waterhouse et al., Nuc. Acids. Res., 21:2265-2266 (1993). Combinatorial antibodies are also discussed in Huse et al., Science 246:1275-1281 (1989), and Sastry et al., Proc. Natl. Acad. Sci. USA, 86:5728-5732 (1989), and Alting-Mees et al., Strategies in Molecular Biology 3:1-9 (1990). These references describe a system commercially available from Stratacyte, La Jolla, CA USA. Briefly, mRNA is isolated from a B cell population and utilized to create heavy and light chain immunoglobulin cDNA expression libraries in the  $\lambda$ IMMUNOZAP(H) and  $\lambda$ IMMUNOZAP(L) vectors. These vectors may be screened individually or co-expressed to form Fab fragments or antibodies, *see* Huse et al., *supra*; *see also* Sastry et al., *supra*. Positive plaques can subsequently be converted to a non-lytic plasmid, which allows for high-level expression of monoclonal antibody fragments from *E. coli*.

**[190] HUMANIZED MOAB:**

**[191]** Binding partners can also be constructed utilizing recombinant DNA techniques to incorporate the variable regions of a gene that encode a specifically binding antibody. The construction of these binding partners can be readily accomplished by one of ordinary skill in the art in view of the present application. *See* Larrick et al., Biotechnology, 7:934-938 (1989); Riechmann et al., Nature, 332:323-327 (1988); Roberts et al., Nature, 328:731-734 (1987); Verhoeyen et al., Science 239:1534-1536 (1988); Chaudhary et al., Nature, 339:394-397 (1989); *see also* U.S. Pat. No. 5,132,405 entitled "Biosynthetic Antibody Binding Sites".) For example, the DNA can be modified by substituting the coding sequence for human heavy- and light-chain constant domains in place of homologous murine sequences, U.S. Pat. No. 4,816,567; Morrison, et al., Proc. Nat. Acad. Sci., 81:6851 (1984), or by covalently joining to the immunoglobulin coding sequence all or part of the coding sequence for a non-immunoglobulin polypeptide. In another example, DNA segments encoding the desired antigen-binding domains specific for the protein or peptide of interest are amplified from appropriate hybridomas and inserted directly into the genome of a cell that produces human



antibodies. See Verhoeyen et al., *supra*; see also Reichmann et al., *supra*. Some of these techniques transfer the antigen-binding site of a specifically binding mouse or rat monoclonal antibody or the like to a human antibody. Such antibodies can be preferable for therapeutic use in humans because they are typically not as antigenic as rat or mouse antibodies.

- 5 [192] In an alternative embodiment, genes that encode the variable region from a hybridoma producing a monoclonal antibody of interest can be amplified using oligonucleotide primers for the variable region. These primers may be synthesized by one of ordinary skill in the art, or may be purchased from commercially available sources. For instance, primers for mouse and human variable regions including, among others, primers for
- 10 V<sub>H</sub>A, V<sub>H</sub>B, V<sub>H</sub>C, V<sub>H</sub>D, C<sub>H</sub>1, V<sub>L</sub>, and C<sub>L</sub> regions are available from Stratacyte (La Jolla, CA). These primers may be utilized to amplify heavy- or light-chain variable regions, which may then be inserted into vectors such as IMMUNOZAP<sup>TM</sup>(H) or IMMUNOZAP<sup>TM</sup>(L) (Stratacyte), respectively. These vectors may then be introduced into *E. coli* for expression. Utilizing these techniques, large amounts of a single-chain protein containing a fusion of the
- 15 V<sub>H</sub> and V<sub>L</sub> domains may be produced, see Bird et al., Science 242:423-426 (1988).

**[193] ANTIBODY SUBSTITUTIONS - NON-IMMUNOGLOBULIN POLYPEPTIDES (ALL ABS):**

- [194] Non-immunoglobulin polypeptides can be substituted in monoclonal and other antibodies described herein for the constant domains of an antibody, or they can be
- 20 substituted for the variable domains of one antigen-combining site of an antibody to create a chimeric bivalent antibody comprising one antigen-combining site having specificity for an antigen and another antigen-combining site having specificity for a different antigen.

**[195] CHIMERICS:**

- [196] Chimeric or hybrid antibodies can also be prepared *in vitro* using known methods in
- 25 synthetic protein chemistry, including those involving crosslinking agents, in view of the present application. For example, immunotoxins may be constructed using a disulfide-exchange reaction or by forming a thioether bond. Examples of suitable reagents for this purpose include iminothiolate and methyl-4-mercaptobutyrimidate.

**[197] ANTIBODY LABELING (ALL ABS):**

- 30 [198] For diagnostic applications or otherwise as desired, and for monoclonal and other antibodies described herein, the antibodies and other binding partners typically will be labeled with a detectable moiety. The detectable moiety can be any moiety that is capable of

producing, either directly or indirectly, a detectable signal. For example, the detectable moiety may be a radioisotope, such as  $^3\text{H}$ ,  $^{14}\text{C}$ ,  $^{32}\text{P}$ ,  $^{35}\text{S}$ , or  $^{125}\text{I}$ ; a fluorescent or chemiluminescent compound, such as fluorescein isothiocyanate, rhodamine, or luciferin; or an enzyme, such as alkaline phosphatase, beta-galactosidase, or horseradish peroxidase. Any method known in the art for conjugating the antibody or binding partner to the detectable moiety may be employed, including those methods described by Hunter et al., *Nature*, 144:945 (1962); David et al., *Biochemistry*, 13:1014 (1974); Pain et al., *J. Immunol. Meth.*, 40:219 (1981); and Nygren, *J. Histochem. Cytochem.*, 30:407 (1982).

### 10 (iii) Humanized And Human Antibodies

#### [199] HUMANIZED AB GENERALLY:

[200] Methods for humanizing non-human antibodies are well known in the art and have been discussed in part above. Generally, a humanized antibody has one or more amino acid residues introduced into it from a source which is non-human. These non-human amino acid residues are often referred to as "import" residues, which are typically taken from an "import" variable domain. Humanization can be performed essentially following the method of Winter and co-workers, Jones et al., *Nature*, 321:522-525 (1986); Riechmann et al., *Nature*, 332:323-327 (1988); Verhoeven et al., *Science*, 239:1534-1536 (1988), by substituting rodent CDRs or CDR sequences for the corresponding sequences of a human antibody. Accordingly, such humanized antibodies are chimeric antibodies, U.S. Pat. No. 4,816,567, wherein substantially less than an intact human variable domain has been substituted by the corresponding sequence from a non-human species. In practice, humanized antibodies are typically human antibodies in which some CDR residues and possibly some FR residues are substituted by residues from analogous sites in rodent antibodies.

25 [201] The choice of human variable domains, both light and heavy, to be used in making humanized antibodies is very important to reduce antigenicity. According to the so-called "best-fit" method, the sequence of the variable domain of a rodent antibody is screened against the entire library of known human variable-domain sequences. The human sequence that is closest to that of the rodent is then accepted as the human framework (FR) for the humanized antibody. Sims et al., *J. Immunol.*, 151:2296 (1993); Chothia and Lesk, *J. Mol. Biol.*, 196:901 (1987). Another method uses a particular framework derived from the consensus sequence of all human antibodies of a particular subgroup of light or heavy chains.

The same framework may be used for several different humanized antibodies. Carter et al., Proc. Natl. Acad. Sci. USA, 89:4285 (1992); Presta et al., J. Immunol., 151:2623 (1993).

[202] It is typically desirable that antibodies be humanized with retention of high affinity for the antigen and other favorable biological properties. To achieve this goal, according to one method, humanized antibodies are prepared by a process of analysis of the parental sequences and various conceptual humanized products using three-dimensional models of the parental and humanized sequences. Three-dimensional immunoglobulin models are commonly available and are familiar to those skilled in the art. Computer programs are available that illustrate and display probable three-dimensional conformational structures of selected candidate immunoglobulin sequences. Inspection of these displays permits analysis of the likely role of the residues in the functioning of the candidate immunoglobulin sequence, *e.g.*, the analysis of residues that influence the ability of the candidate immunoglobulin to bind antigen. In this way, FR residues can be selected and combined from the consensus and import sequences so that the desired antibody characteristic, such as increased affinity for the target antigen(s), is achieved. In general, CDR residues are directly and most substantially involved in influencing antigen binding.

[203] It is also possible to produce transgenic animals (*e.g.*, mice) that are capable, upon immunization, of producing a full repertoire of human antibodies in the absence of endogenous immunoglobulin production. For example, it has been described that the homozygous deletion of the antibody heavy-chain joining region (J<sub>H</sub>) gene in chimeric and germ-line mutant mice results in complete inhibition of endogenous antibody production. Transfer of the human germ-line immunoglobulin gene array in such germ-line mutant mice will result in the production of human antibodies upon antigen challenge. *See, e.g.*, Jakobovits et al., Proc. Natl. Acad. Sci. USA. 90:2551-255 (1993); Jakobovits et al., Nature, 362:255-258 (1993); Bruggemann et al., Year Immuno., 7:33 (1993). Human antibodies can also be produced in phage-display libraries, Hoogenboom and Winter, J. Mol. Biol., 227:381 (1991); Marks et al., J. Mol. Biol., 222:581 (1991).

#### (iv) Antibody Fragments

[204] **ANTIBODY FRAGMENTS:**

[205] Various techniques have been developed for the production of antibody fragments. Such fragments can be derived via proteolytic digestion of intact antibodies, *see, e.g.*,

Morimoto et al., J. Biochem. Biophys. Meth. 24:107-117 (1992) and Brennan et al., Science, 229:81 (1985). Fragments can also be produced directly by recombinant host cells. For example, antibody fragments can be isolated from antibody phage libraries discussed above. Fab'-SH fragments can be directly recovered from *E. coli* and chemically coupled to form F(ab')<sub>2</sub> fragments, Carter et al., Biotechnology 10:163-167 (1992). F(ab')<sub>2</sub> fragments can be isolated directly from recombinant host cell culture. Other techniques for the production of antibody fragments will be apparent to the skilled practitioner.

#### (v) Bispecific Antibodies

##### 10 [206] **BISPECIFIC ANTIBODIES GENERALLY:**

[207] Bispecific antibodies (BsAbs) are antibodies that have binding specificities for at least two different antigens. Bispecific antibodies can be derived from full-length antibodies or from antibody fragments, e.g., F(ab')<sub>2</sub> bispecific antibodies.

[208] Methods for making bispecific antibodies are known in the art. Traditional  
15 production of full-length bispecific antibodies is based on the coexpression of two immunoglobulin heavy chain-light chain pairs, where the two chains have different specificities, Millstein and Cuello, Nature, 305:537-539 (1983). Because of the random assortment of immunoglobulin heavy and light chains, these hybridomas (quadromas) produce a mixture of potentially 10 different antibody molecules, of which only one has the  
20 correct bispecific structure. Purification of the correct molecule, which is usually accomplished by affinity chromatography steps, is rather cumbersome, and the product yields are low. Similar procedures are disclosed in WO 93/08829, and in Traunecker et al., E.M.B.O.J., 10:3655-3659 (1991).

[209] According to another approach, antibody variable domains containing the desired  
25 binding specificities (antibody-antigen combining sites) are fused to immunoglobulin constant domain sequences. The fusion is preferably with an immunoglobulin heavy chain constant domain, comprising at least part of the hinge, C<sub>H</sub> 2, and C<sub>H</sub> 3 regions. It is preferred to have the first heavy-chain constant region (C<sub>H</sub> 1) containing the site necessary for light chain binding, present in at least one of the fusions. DNAs encoding the immunoglobulin  
30 heavy chain fusions and, if desired, the immunoglobulin light chain, are inserted into separate expression vectors, and are co-transfected into a suitable host organism. This provides for great flexibility in adjusting the mutual proportions of the three polypeptide fragments in

embodiments when unequal ratios of the three polypeptide chains used in the construction provide the improved yields. It is, however, possible to insert the coding sequences for two or all three polypeptide chains in one expression vector when the expression of at least two polypeptide chains in equal ratios results in high yields or when the ratios are of no particular significance.

**[210] ANTIBODIES - HYBRID IMMUNOGLOBULIN HEAVY CHAIN:**

**[211]** In one embodiment of this approach, the bispecific antibodies are composed of a hybrid immunoglobulin heavy chain with a first binding specificity in one arm, and a hybrid immunoglobulin heavy chain-light chain pair (providing a second binding specificity) in the other arm. This asymmetric structure may facilitate the separation of the desired bispecific compound from unwanted immunoglobulin chain combinations, as the presence of an immunoglobulin light chain in only one half of the bispecific molecule provides for a facile method of separation. This approach is discussed in WO 94/04690. For further details of generating bispecific antibodies see, for example, Suresh et al., Meth. Enzymol., 121:210 (1986).

**[212] ANTIBODIES - CROSS-LINKED OR "HETEROCONJUGATE":**

**[213]** Bispecific antibodies include cross-linked or "heteroconjugate" antibodies. For example, one of the antibodies in the heteroconjugate can be coupled to avidin, the other to biotin. Such antibodies have, for example, been proposed to target immune system cells to unwanted cells, U.S. Pat. No. 4,676,980), and for treatment of HIV infection, WO 91/00360, WO 92/200373, and EP 03089). Heteroconjugate antibodies may be made using any convenient cross-linking methods. Suitable cross-linking agents are well known in the art, and are disclosed in U.S. Pat. No. 4,676,980, along with a number of cross-linking techniques.

**[214] ANTIBODIES - DIABODIES:**

**[215]** The "diabody" technology described by Hollinger et al., Proc. Natl. Acad. Sci. USA, 90:6444-6448 (1993) has provided an alternative mechanism for making BsAb fragments. The fragments comprise a heavy-chain variable domain ( $V_H$ ) connected to a light-chain variable domain ( $V_L$ ) by a linker that is too short to allow pairing between the two domains on the same chain. Accordingly, the  $V_H$  and  $V_L$  domains of one fragment are forced to pair with the complementary  $V_L$  and  $V_H$  domains of another fragment, thereby forming two antigen-binding sites.

[216] Another strategy for making BsAb fragments by the use of single-chain Fv (sFv) dimers has also been reported. See Gruber et al., J. Immunol., 152:5368 (1994). These researchers designed an antibody comprising the V<sub>H</sub> and V<sub>L</sub> domains of a first antibody joined by a 25-amino-acid-residue linker to the V<sub>H</sub> and V<sub>L</sub> domains of a second antibody.

- 5 The refolded molecule bound to fluorescein and the T-cell receptor and redirected the lysis of human tumor cells that had fluorescein covalently linked to their surface.

[217] **ANTIBODIES - OTHER:**

- [218] Techniques for generating bispecific antibodies from antibody fragments have also been described in the literature. For example, bispecific antibodies can be prepared using chemical linkage. Brennan et al., Science, 229:81 (1985) describe a procedure wherein intact  
10 antibodies are proteolytically cleaved to generate F(ab')<sub>2</sub> fragments. These fragments are reduced in the presence of the dithiol complexing agent sodium arsenite to stabilize vicinal dithiols and prevent intermolecular disulfide formation. The Fab' fragments generated are then converted to thionitrobenzoate (TNB) derivatives. One of the Fab'-TNB derivatives is  
15 then reconverted to the Fab'-thiol by reduction with mercaptoethylamine and is mixed with an equimolar amount of the other Fab'-TNB derivative to form the BsAb. The BsAbs produced can be used as agents for the selective immobilization of enzymes.

- [219] Fab'-SH fragments can be directly recovered from *E. coli*, which can be chemically coupled to form bispecific antibodies. Shalaby et al., J. Exp. Med., 175:217-225 (1992)  
20 describe the production of a fully humanized BsAb F(ab')<sub>2</sub> molecule. Each Fab' fragment was separately secreted from *E. coli* and subjected to directed chemical coupling *in vitro* to form the BsAb. The BsAb thus formed was able to bind to cells overexpressing the HER2 receptor and normal human T cells, as well as trigger the lytic activity of human cytotoxic lymphocytes against human breast tumor targets. See also Rodriguez et al., Int. J. Cancers  
25 (Suppl.) 7:45-50 (1992).

- [220] Various techniques for making and isolating BsAb fragments directly from recombinant cell culture have also been described. For example, bispecific F(ab')<sub>2</sub> heterodimers have been produced using leucine zippers. Kostelny et al., J. Immunol., 148(5):1547-1553 (1992). The leucine zipper peptides from the Fos and Jun proteins are  
30 linked to the Fab' portions of two different antibodies by gene fusion. The antibody homodimers are reduced at the hinge region to form monomers and then re-oxidized to form the antibody heterodimers.

b. Antibody Purification

**[221] ANTIBODY PURIFICATION GENERALLY:**

**[222]** When using recombinant techniques, the antibody can be produced intracellularly, in the periplasmic space, or directly secreted into the medium. If the antibody is produced intracellularly, as a first step, the particulate debris, either host cells or lysed fragments, is removed, for example, by centrifugation or ultrafiltration. Carter et al., *Bio/Technology* 10:163-167 (1992), describe a procedure for isolating antibodies which are secreted to the periplasmic space of *E. coli*. Briefly, cell paste is thawed in the presence of sodium acetate (pH 3.5), EDTA, and phenylmethylsulfonylfluoride (PMSF) over about 30 min. Cell debris can be removed by centrifugation. Where the antibody is secreted into the medium, supernatants from such expression systems are generally first concentrated using a commercially available protein concentration filter, for example, an Amicon or Millipore Pellicon ultrafiltration unit. A protease inhibitor such as PMSF may be included in any of the foregoing steps to inhibit proteolysis and antibiotics may be included to prevent the growth of adventitious contaminants.

**[223] BEFORE LPHIC:**

**[224]** The antibody composition prepared from the cells is preferably subjected to at least one purification step prior to LPHIC. Examples of suitable purification steps include hydroxyapatite chromatography, gel electrophoresis, dialysis, and affinity chromatography. The suitability of protein A as an affinity ligand depends on the species and isotype of any immunoglobulin Fc domain that is present in the antibody. Protein A can be used to purify antibodies that are based on human  $\gamma 1$ ,  $\gamma 2$ , or  $\gamma 4$  heavy chains, Lindmark et al., *J. Immunol. Meth.* 62:1-13 (1983). Protein G has been recommended for mouse isotypes and for human  $\gamma 3$ , Guss et al., *E.M.B.O. J.*, 5:1567-1575 (1986). The matrix to which the affinity ligand is attached is often agarose, but other matrices are available. Mechanically stable matrices such as controlled pore glass or poly(styrenedivinyl)benzene allow for faster flow rates and shorter processing times than can be achieved with agarose. Where the antibody comprises a  $C_H 3$  domain, the Bakerbond ABX<sup>TM</sup> resin (J. T. Baker, Phillipsburg, N.J.) is useful for purification. Other techniques for protein purification such as fractionation on an ion-exchange column, ethanol precipitation, Reverse Phase HPLC, chromatography on silica, chromatography on heparin SEPHAROSE<sup>TM</sup>, chromatography on an anion or cation

exchange resin (such as a polyaspartic acid column), chromatofocusing, SDS-PAGE, and ammonium sulfate precipitation are also available depending on the antibody to be recovered.

**[225] LPHIC:**

**[226]** Following any preliminary purification step(s), the mixture comprising the antibody of interest and contaminant(s) can be subjected to LPHIC. See US Patent No. 6,214,984. Often, the antibody composition to be purified will be present in a buffer from the previous purification step. However, it may be necessary to add a buffer to the antibody composition prior to the LPHIC step. Many buffers are available and can be selected by routine experimentation. The pH of the mixture comprising the antibody to be purified and at least one contaminant in a loading buffer is adjusted to a pH of about 2.5-4.5 using either an acid or base, depending on the starting pH. The loading buffer can have a low salt concentration (e.g., less than about 0.25 M salt).

**[227]** The mixture is loaded on the HIC column. HIC columns normally comprise a base matrix (e.g., cross-linked agarose or synthetic copolymer material) to which hydrophobic ligands (e.g., alkyl or aryl groups) are coupled. One example of an HIC column comprises an agarose resin substituted with phenyl groups (e.g., a Phenyl SEPHAROSE<sup>TM</sup> column). Many HIC columns are available commercially. Examples include, but are not limited to, Phenyl SEPHAROSE 6 FAST FLOW<sup>TM</sup> column with low or high substitution (Pharmacia LKB Biotechnology, AB, Sweden); Phenyl SEPHAROSE<sup>TM</sup> High Performance column (Pharmacia LKB Biotechnology, AB, Sweden); Octyl SEPHAROSE<sup>TM</sup> High Performance column (Pharmacia LKB Biotechnology, AB, Sweden); FRACTOGEL<sup>TM</sup> EMD Propyl or FRACTOGEL<sup>TM</sup> EMD Phenyl columns (E. Merck, Germany); MACRO-PREP<sup>TM</sup> Methyl or MACRO-PREP<sup>TM</sup> t-Butyl Supports (Bio-Rad, California); WP HI-Propyl (C<sub>3</sub>)<sup>TM</sup> column (J. T. Baker, New Jersey); and TOYOPEARL<sup>TM</sup> ether, phenyl, or butyl columns (TosoHaas, PA).

**[228]** The antibody is typically eluted from the column using an elution buffer that is the same as the loading buffer. The elution buffer can be selected using routine experimentation in view of the present application. The pH of the elution buffer may be between about 2.5-4.5 and have a low salt concentration (e.g., less than about 0.25 M salt). It may not be necessary to use a salt gradient to elute the antibody of interest; the desired product may be recovered in the flow-through fraction that does not bind significantly to the column.



[229] The LPHIC step provides a way to remove a correctly folded and disulfide bonded antibody from unwanted contaminants (*e.g.*, incorrectly associated light and heavy fragments). The method can provide an approach to substantially remove an impurity characterized as a correctly folded antibody fragment whose light and heavy chains fail to  
5 associate through disulfide bonding. Antibody compositions prepared using LPHIC can be up to about 95% pure or more. Purities of more than about 98% have been reported. US Patent No. 6,214,984.

[230] **POST LPHIC:**

[231] Antibody compositions prepared by LPHIC can be further purified as desired using  
10 techniques which are well known in the art. Diagnostic or therapeutic formulations of the purified protein can be made by providing the antibody composition in a physiologically acceptable carrier, examples of which are provided below. To remove contaminants (*e.g.*, unfolded antibody and incorrectly associated light and heavy fragments) from the HIC column so that it can be re-used, a composition including urea (*e.g.*, 6.0 M urea, 1% MES  
15 buffer pH 6.0, 4 mM ammonium sulfate) can be flowed through the column.

c. Some Uses For Antibodies Described Herein

(i) Generally

[232] **GENERALLY:**

20 [233] The present invention comprises any suitable use for the antibodies and other binding partners discussed herein. The following provides some of the desired uses, including diagnostic and therapeutic uses. Various diagnostic and therapeutic uses for antibodies have been reviewed in Goldenberg et al., *Semin. Cancer Biol.*, 1(3):217-225 (1990); Beck et al., *Semin. Cancer Biol.*, 1(3):181-188 (1990); Niman, *Immunol. Ser.* 53:189-  
25 204 (1990); and, Endo, *Nippon Igaku Hoshasen Gakkai Zasshi (Japan)* 50(8):901-909 (1990), for example.

[234] **ASSAYS:**

[235] The antibodies can be used in immunoassays, such as enzyme immunoassays. BsAbs can be useful for this type of assay; one arm of the BsAb can be designed to bind to a  
30 specific epitope on the enzyme so that binding does not cause enzyme inhibition, the other arm of the antibody can be designed to bind to an immobilizing matrix ensuring a high enzyme density at the desired site. Examples of such diagnostic BsAbs include those having

specificity for IgG as well as ferritin, and those having binding specificities for horseradish peroxidase (HRP) as well as a hormone, for example. Monoclonal and polyclonal antibodies are also exemplary antibodies for immunoassays.

[236] The antibodies can be designed for use in two-site immunoassays. For example, two antibodies are produced binding to two separate epitopes on the analyte protein; one antibody binds the complex to an insoluble matrix, the other binds an indicator enzyme.

[237] **DIAGNOSTIC USES:**

[238] Antibodies can also be used for immunodiagnosis, *in vitro* or *in vivo* or otherwise, of various diseases or conditions based on the presence or absence of a particular GPCR.

10 Such diseases and conditions include, *e.g.*, immune-related diseases, cell growth-related diseases, cell regeneration-related diseases, immunological-related cell proliferative diseases, and autoimmune diseases. Examples of specific diseases include AIDS, allergies, Alzheimer's disease, amyotrophic lateral sclerosis, atherosclerosis, bacterial, fungal, protozoan and viral infections, benign prostatic hypertrophy, bone diseases (*e.g.*, osteoarthritis, osteoporosis), carcinoma (*e.g.*, basal cell carcinoma, breast carcinoma, embryonal carcinoma, ovarian carcinoma, renal cell carcinoma, lung adenocarcinoma, lung small cell carcinoma, pancreatic carcinoma, prostate carcinoma, transitional carcinoma of the bladder, squamous cell carcinoma, thyroid carcinoma), cardiomyopathy, chronic and acute inflammation, circadian rhythm disorders, COPD, Crohn's disease, diabetes, Duchenne

15 muscular dystrophy, embryonal carcinoma, endotoxic shock, environmental stress (*e.g.*, by heat, UV or chemicals), gastrointestinal disorders, glioblastoma multiform, graft vs. host disease, Hodgkin's disease, inflammatory bowel disease, ischemia, stroke, lymphoma, macular degeneration, malignant cytokine production, malignant fibrous histiocytoma, melanoma, meningioma, mesothelioma, multiple sclerosis, nasal congestion, pain,

20 Parkinson's disease, prostate carcinoma, psoriasis, rhabdomyosarcoma, psychotic or neurological disorders (*e.g.*, anxiety, depression, schizophrenia, dementia, mental retardation, memory loss, epilepsy, locomotor problems, respiratory disorders, asthma, eating/body weight disorders including obesity, bulimia, diabetes, anorexia, nausea, hypertension, hypotension), renal disorders, reperfusion injury, rheumatoid arthritis, sarcoma (*e.g.*, chondrosarcoma, Ewing's sarcoma, osteosarcoma), septicemia, seminoma,

30 sexual/reproductive disorders, tonsil, transitional carcinoma of the bladder, transplant rejection, trauma, tuberculosis, ulcers, ulcerative colitis, urinary retention, vascular and

cardiovascular disorders, or any other disease or disorder in which G protein-coupled receptors are involved, as well as learning and/or memory disorders, diabetes, pain perception disorders, anorexia, obesity, hormonal release problems, or any other disease or disorder in which a specific GPCR is involved.

- 5 [239] To facilitate this diagnostic use, an antibody that binds a particular GPCR, when such is differentially expressed in tumors or other target diseases, can be conjugated with a detectable marker (*e.g.*, a chelator that binds a radionuclide). Examples of tumor-associated antigens being used in a similar fashion include an antibody having specificity for the tumor-associated antigen CEA used for imaging colorectal and thyroid carcinomas and the anti-  
10 p185<sup>HER2</sup> antibody used for detecting cancers characterized by amplification of the HER2 protooncogene. Other uses for the antibodies of the present invention will be apparent to the skilled practitioner in view of the present application.

(ii) Assays

15 [240] **ASSAYS:**

- [241] For certain applications such as some diagnostic and other assay applications, the antibody typically can be labeled directly or indirectly with a detectable moiety. The detectable moiety can be any moiety that is capable of producing, either directly or indirectly, a detectable signal. For example, the detectable moiety may be a radioisotope, such as <sup>3</sup>H,  
20 <sup>14</sup>C, <sup>32</sup>P, <sup>35</sup>S, or <sup>125</sup>I; a fluorescent or chemiluminescent compound, such as fluorescein isothiocyanate, rhodamine, or luciferin; or an enzyme, such as alkaline phosphatase, beta-galactosidase, or HRP.

- [242] Any method known in the art for separately conjugating the antibody to the detectable moiety may be employed, including those methods described by Hunter et al.,  
25 *Nature*, 144:945 (1962); David et al., *Biochemistry*, 13:1014 (1974); Pain et al., *J. Immunol. Meth.* 40:219 (1981); and, Nygren, *J. Histochem. and Cytochem.* 30:407 (1982).

- [243] The antibodies of the present invention may be employed in any desired assay method, such as competitive binding assays, direct, and indirect sandwich assays, and immunoprecipitation assays. Zola, *Monoclonal Antibodies: A Manual of Techniques*, pp.  
30 147-158 (CRC Press, Inc. (1987).

[244] **COMPETITIVE BINDING ASSAYS:**

[245] Competitive binding assays rely on the ability of a labeled standard to compete with the test sample analyte for binding with a limited amount of antibody. The amount of analyte in the test sample is inversely proportional to the amount of standard that becomes bound to the antibody. To facilitate determining the amount of standard that becomes bound, the antibody generally is insolubilized before or after the competition, so that the standard, and analyte that are bound to the antibody may conveniently be separated from the standard, and analyte which remain unbound.

[246] BsAbs are particularly useful for sandwich assays which involve the use of two molecules, each capable of binding to a different immunogenic portion, or epitope, of the sample to be detected. In a sandwich assay, the test sample analyte is bound by a first arm of the antibody which is immobilized on a solid support, and thereafter a second arm of the antibody binds to the analyte, thus forming an insoluble three part complex. *See, e.g., U.S. Pat. No. 4,376,110.* The second arm of the antibody may itself be labeled with a detectable moiety (direct sandwich assays) or may be measured using an anti-immunoglobulin antibody that is labeled with a detectable moiety (indirect sandwich assay). For example, one type of sandwich assay is an ELISA assay, in which case the detectable moiety is an enzyme. Assays are discussed further elsewhere herein in relation to binding partners such as antibodies, and antigenic peptides for particular GPCRs, including assays searching for or using such antigenic peptides, and would be apparent to those skilled in the art in view of the present application.

### (iii) Affinity Purification

#### [247] AFFINITY PURIFICATION:

[248] The antibodies also are useful for the affinity purification of an antigen of interest such as a particular GPCR from sources such as recombinant cell culture or natural sources.

### (iv) Therapeutics

#### [249] THERAPEUTIC USES:

[250] Therapeutic compositions, and uses, etc., for the antibodies described herein will now be discussed. As with other parts of this application, this section does not contain the entire discussion of therapeutic uses or compositions, etc., for antibodies; other sections discuss both antibodies, and therapeutics, and the discussion in this section applies to certain

other aspects discussed herein. Turning to antibodies and therapeutics, the antibodies can be used, for example, for redirected cytotoxicity (*e.g.*, to kill tumor cells), as a vaccine adjuvant, for delivering thrombolytic agents to clots, for delivering immunotoxins to tumor cells, for converting enzyme activated prodrugs at a target site (*e.g.*, a tumor), for treating infectious  
5 diseases or targeting immune complexes to cell surface receptors.

**[251] THERAPEUTIC FORMULATIONS:**

**[252]** Therapeutic formulations of the antibody can be prepared for storage by mixing the antibody having the desired degree of purity with optional physiologically acceptable carriers, excipients, or stabilizers (Remington's Pharmaceutical Sciences, 16th edition, Osol,  
10 A., Ed. (1980), for example in the form of lyophilized cake or aqueous solutions. Acceptable carriers, excipients, or stabilizers are nontoxic to recipients at the dosages, and concentrations employed, and include buffers such as phosphate, citrate, and other organic acids; antioxidants including ascorbic acid; low molecular weight (less than about 10 residues) polypeptides; proteins, such as serum albumin, gelatin, or immunoglobulins; hydrophilic  
15 polymers such as polyvinylpyrrolidone; amino acids such as glycine, glutamine, asparagine, arginine, or lysine; monosaccharides, disaccharides, and other carbohydrates including glucose, mannose, or dextrans; chelating agents such as EDTA; sugar alcohols such as mannitol or sorbitol; salt-forming counterions such as sodium; or nonionic surfactants such as Tween, Pluronic, or polyethylene glycol (PEG).

**[253]** The antibodies also may be entrapped in microcapsules prepared, for example, by coacervation techniques or by interfacial polymerization (for example, hydroxymethylcellulose or gelatin-microcapsules, and poly-[methylmethacrylate] microcapsules, respectively), in colloidal drug delivery systems (for example, liposomes, albumin microspheres, microemulsions, nano-particles, and nanocapsules), or in  
25 macroemulsions. Such techniques are disclosed in Remington's Pharmaceutical Sciences, *supra*.

**[254] THERAPEUTIC FORMULATIONS -STERILE:**

**[255]** An antibody to be used for *in vivo* human administration should be sterile. This can be accomplished by filtration through sterile filtration membranes, for example prior to or  
30 following lyophilization and reconstitution. The antibody ordinarily will be stored in lyophilized form or in solution. Therapeutic antibody compositions generally are placed into

a container having a sterile access port, for example, an intravenous solution bag or vial having a stopper pierceable by a hypodermic injection needle.

**[256] THERAPEUTIC ADMINISTRATIONS:**

**[257]** The route of antibody administration is in accord with known methods, *e.g.*,  
5 injection or infusion by intravenous, intraperitoneal, intracerebral, intramuscular, intraocular, intraarterial, or intralesional routes, or by sustained release systems as noted below.

**[258]** The antibody can be administered, for example, continuously by infusion or by bolus injection. Suitable examples of sustained-release preparations include semipermeable matrices of solid hydrophobic polymers containing the protein, which matrices are in the  
10 form of shaped articles, *e.g.*, films, or microcapsules. Examples of sustained-release matrices include polyesters, hydrogels (*e.g.*, poly(2-hydroxyethyl-methacrylate) as described by Langer et al., J. Biomed. Mater. Res., 15:167-277 (1981), and Langer, Chem. Tech., 12:98-105 (1982), or poly(vinylalcohol)), polylactides, U.S. Pat. No. 3,773,919; EP 58,481, copolymers of L-glutamic acid and gamma ethyl-L-glutamate, Sidman et al., Biopolymers,  
15 22:547-556 (1983), non-degradable ethylene-vinyl acetate, Langer et al., *supra*, degradable lactic acid-glycolic acid copolymers such as the LUPRON DEPOT<sup>TM</sup> (injectable microspheres composed of lactic acid-glycolic acid copolymer and leuprolide acetate), and poly-D-(-)-3-hydroxybutyric acid, EP 133,988.

**[259] THERAPEUTIC ADMINISTRATIONS - SUSTAINED RELEASE-  
20 POLYMERS:**

**[260]** While polymers such as ethylene-vinyl acetate and lactic acid-glycolic acid sustain release of molecules for over 100 days, certain hydrogels release proteins for shorter time periods. When encapsulated antibodies remain in the body for a long time, they may denature or aggregate as a result of exposure to moisture at 37°C, resulting in a loss of  
25 biological activity and possible changes in immunogenicity. Rational strategies can be devised for antibody stabilization depending on the mechanism involved. For example, if the aggregation mechanism is discovered to be intermolecular S-S bond formation through thio-disulfide interchange, stabilization may be achieved by modifying sulfhydryl residues, lyophilizing from acidic solutions, controlling moisture content, using appropriate additives,  
30 and developing specific polymer matrix compositions.

**[261] THERAPEUTIC ADMINISTRATIONS - SUSTAINED RELEASE-  
LIPOSOMES:**

[262] Sustained-release antibody compositions also include liposomally entrapped antibody. Liposomes containing the antibody can be prepared by methods such as those in DE 3,218,121; Epstein et al., Proc. Natl. Acad. Sci. USA, 82:3688-3692 (1985); Hwang et al., Proc. Natl. Acad. Sci. USA, 77:4030-4034 (1980); EP 52,322; EP 36,676; EP 88,046; EP 143,949; EP 142,641; Japanese patent application 83-118008; U.S. Pat. Nos. 4,485,045 and 4,544,545; and EP 102,324. Ordinarily the liposomes are of the small (about 200-800 Angstroms) unilamellar type in which the lipid content is greater than about 30 mol. % cholesterol, the selected proportion being adjusted for the optimal antibody therapy.

**[263] THERAPEUTICALLY EFFECTIVE AMOUNT:**

10 [264] An effective amount of antibody to be employed therapeutically will depend, for example, upon the therapeutic objectives, the route of administration, and the condition of the patient. Accordingly, it will be necessary for the therapist to titer the dosage and modify the route of administration as required to obtain the optimal therapeutic effect. A typical daily dosage might range from about 1 µg/kg to up to 10 mg/kg or more, depending on the factors  
15 mentioned above. Typically, the clinician will administer antibody until a dosage is reached that achieves the desired effect. The progress of this therapy is easily monitored by conventional assays.

20 5. DRUG DESIGN BASED ON THE ANTIGENS HEREIN OR ANTIBODIES THERETO

**[265] DISEASE/CONDITIONS LIST:**

[266] The peptides and antibodies of the present invention can serve as valuable tools for designing drugs for treating various pathophysiological conditions such as immune-related diseases, cell growth-related diseases, cell regeneration-related diseases, immunological-  
25 related cell proliferative diseases, and autoimmune diseases. Examples of specific diseases include AIDS, allergies, Alzheimer's disease, amyotrophic lateral sclerosis, atherosclerosis, bacterial, fungal, protozoan and viral infections, benign prostatic hypertrophy, bone diseases (e.g., osteoarthritis, osteoporosis), carcinoma (e.g., basal cell carcinoma, breast carcinoma, embryonal carcinoma, ovarian carcinoma, renal cell carcinoma, lung adenocarcinoma, lung  
30 small cell carcinoma, pancreatic carcinoma, prostate carcinoma, transitional carcinoma of the bladder, squamous cell carcinoma, thyroid carcinoma), cardiomyopathy, chronic and acute inflammation, circadian rhythm disorders, COPD, Crohn's disease, diabetes, Duchenne

muscular dystrophy, embryonal carcinoma, endotoxic shock, environmental stress (*e.g.*, by heat, UV or chemicals), gastrointestinal disorders, glioblastoma multiform, graft vs. host disease, Hodgkin's disease, inflammatory bowel disease, ischemia, stroke, lymphoma, macular degeneration, malignant cytokine production, malignant fibrous histiocytoma, melanoma, meningioma, mesothelioma, multiple sclerosis, nasal congestion, pain, Parkinson's disease, prostate carcinoma, psoriasis, rhabdomyosarcoma, psychotic or neurological disorders (*e.g.*, anxiety, depression, schizophrenia, dementia, mental retardation, memory loss, epilepsy, locomotor problems, respiratory disorders, asthma, eating/body weight disorders including obesity, bulimia, diabetes, anorexia, nausea, hypertension, hypotension), renal disorders, reperfusion injury, rheumatoid arthritis, sarcoma (*e.g.*, chondrosarcoma, Ewing's sarcoma, osteosarcoma), septicemia, seminoma, sexual/reproductive disorders, tonsil, transitional carcinoma of the bladder, transplant rejection, trauma, tuberculosis, ulcers, ulcerative colitis, urinary retention, vascular and cardiovascular disorders, or any other disease or disorder in which G protein-coupled receptors are involved, as well as learning and/or memory disorders, diabetes, pain perception disorders, anorexia, obesity, hormonal release problems, or any other disease or disorder in which a specific GPCR is involved or that would be readily apparent to those skilled in the art in view of the present application.

#### EXAMPLES

[267] The Examples below provide information as follows: Example 1 relates to the identification and selection of the antigens set forth in Figure 2. Examples 2 to 4 relate to antibody production and purification based on such antigens. Examples 5 to 10 relate to H&E staining. And, Example 11 relates to Western blot analyses.

#### EXAMPLE 1: SELECTION OF ANTIGENS

[268] Antigenic peptides were derived from the amino acid sequence of a particular GPCR based on analyses of likely antigen-containing regions and specificity of those regions for the protein/gene of interest. The specificity of the antigen peptides (approximately 20 amino acids in length) for antibody generation was determined using the outlined techniques, including BLAST of several public databases. These public databases included but were not limited to GenBank, Swiss Prot Human, Swiss Prot NonHuman, GenPeptH, GenPept M, and



LifeSpan's proprietary databases. With respect to specificity, parameters that precluded the use of a particular peptide included the presence of 6 or more contiguous amino acids with sequence identity to protein(s) other than the protein of interest, the presence of sites of posttranslational modification, including phosphorylation and glycosylation, and highly hydrophobic sequences, which could indicate potential *in situ* localization within the plasma membrane. The peptides were analyzed for antigenicity using the published algorithm of Hopp, T. P., and Woods, K. R, Proc. Natl. Acad. Sci. U.S.A. 78, 3824-3828, (1981). Additional considerations in antigenic peptide design included 1) selection against sequences with multiple prolines in a row, 2) selection against sequences with multiple serines in a row, 3) selection against sequences with multiple lysines in a row, 4) selection against sequences with multiple arginines in a row 5) selection against sequences with multiple aspartic acids in a row, 6) selection against sequences with multiple glutamic acids in a row, 7) selection against peptides containing methionine or tryptophan, which can become oxidized as a result of the cyclization reaction, and 8) avoidance of stretches of 5 or more amino acids having no uncharged amino acids (which also resulted in a desirable charge to peptide length ratio of at least 1 charge:5 residues). The selected antigenic peptides are set forth in the Sequence Listing and in Figure 2.

#### EXAMPLE 2: ANTIBODY PRODUCTION SCHEDULE

- [269] Day 0 - Pre-immune serum collection (approximately 5.0 ml). Immunize using 200 µg antigen peptide per rabbit in Complete Freund's Adjuvant.
- [270] Day 14 - Immunize using 100 µg antigen per rabbit in Incomplete Freund's Adjuvant.
- [271] Day 28 - Immunize using 100 µg antigen per rabbit in Incomplete Freund's Adjuvant.
- [272] Day 42 - Immunize using 100 µg antigen per rabbit in Incomplete Freund's Adjuvant.
- [273] Day 49 - First production bleed; obtain 24.0 - 26.0 ml.
- [274] Day 56 - Immunize using 100 µg antigen per rabbit in Incomplete Freund's Adjuvant.
- [275] Day 63 - Second production bleed and ELISA analysis.

[276] Day 70 - Immunize using 100  $\mu$ g antigen per rabbit in Incomplete Freund's Adjuvant.

[277] Day 77 - Third production bleed and affinity purification.

5                   **EXAMPLE 3: IMMUNOSORBENT PURIFICATION OF ANTISERUM:  
COUPLING OF PEPTIDE TO CNBR-ACTIVATED SEPHAROSE 4B**

[278] Weigh out 0.8 g of CNBr-activated Sepharose 4B (2.5 ml of final gel volume). Wash and re-swell on sintered glass filter with 1 mM HCl, followed by coupling buffer (0.1 M NaHCO<sub>3</sub>, 0.25 M NaCl, pH 8.5). Dissolve 10 mg of protein or peptide in coupling buffer.  
10 Mix protein solution with gel suspension and incubate 2 hours at room temperature or overnight at 4°C. Block remaining active groups with 0.2 M glycine buffer, pH 8.1. Wash away excess adsorbed protein with coupling buffer, followed by 0.1 M acetate buffer containing 0.5 M NaCl, pH 4.3. Equilibrate the column with phosphate-buffered saline (PBS), pH 7.7.

15                   **EXAMPLE 4: IMMUNOSORBENT PURIFICATION OF ANTISERUM:  
AFFINITY PURIFICATION OF ANTISERUM**

[279] Dilute 10 ml of clear antiserum 1:1 with PBS, pH 7.7, apply to affinity column at a flow rate of 0.3 ml/minute, and monitor absorbance of eluate at 280 nm. Collect fractions of  
20 unbound material and rinse column with PBS, pH 7.7. Elute bound antibody with 0.2 M glycine, pH 1.85, and collect eluate until absorbance at 280 nm returns to baseline. Neutralize all collected fractions with 1 M Tris-HCl, pH 8.5 immediately after collection. Determine OD at 280 nm, and determine the total OD recovered. Conduct ELISA analysis with the corresponding antigen to confirm the presence and identity of recovered antibody  
25 and the removal of all antibody from the original serum. Concentrate antibody to approximately 2.0 mg/ml and dialyze against PBS with 0.01% NaN<sub>3</sub>.

**EXAMPLE 5: PREPARATION OF ANTIBODY DILUTIONS**

[280] The purpose of this protocol is to dilute antibodies in solution. Materials include  
30 Tris-HCL Buffer with carrier protein and 0.015 M NaN<sub>3</sub> (Dako Antibody Diluent #S0809 (DAKO, Carpinteria, CA); vials containing the antibodies described above or commercial antibodies against the particular GPCR; pipetmen and disposable tips; container of chopped ice; 12 ml Dako reagent tubes; and, reagent tube rack.

- [281] The procedure is a) calculate proportions of antibody and diluent according to desired concentrations and volume requirements; b) label reagent tubes and place in rack; c) pipette needed volume of diluent into tube(s); d) place vials of antibodies into ice; e) invert and/or flick antibody vial(s) 3 or 4 times to insure suspension; f) pipette required volume of antibody(s) into corresponding diluent volumes; and, g) mix gently.

#### EXAMPLE 6: PREPARATION OF AUTOSTAINER SOLUTIONS

- [282] The purpose of this protocol is the preparation of concentrated solutions for use in a DAKO autostainer. Materials include DAKO<sup>®</sup> TBST (Tris Buffered Saline Containing Tween-S3306), 10X Concentrate, DAKO<sup>®</sup> Target Retrieval Solution, 10x Concentrate (S1699), deionized H<sub>2</sub>O, 20L container, with lid, marked at the 10L level, DAKO<sup>®</sup> TBS (Tris Buffered Saline-S1968), and DAKO Tween<sup>®</sup> (S1966).

- [283] The procedure to make TBST 10x Concentrate is a) pour 2 500 ml bottles DAKO<sup>®</sup> TBST into a 20 L container, b) add deionized H<sub>2</sub>O until solution level is at 10 L mark, c) replace lid and shake 10 to 20 times, d) pour diluted DAKO<sup>®</sup> TBST into autostainer carboy(s) as designated. The procedure to make Target Retrieval Solution is a) measure 135 ml of deionized H<sub>2</sub>O and pour into slide bath, b) measure 15 ml of DAKO<sup>®</sup> Target Retrieval solution, c) add to H<sub>2</sub>O, and d) agitate. This solution is then used in the steam method of target retrieval, Example 9, below. The procedure to make TBS is a) fill 20L container to 10L mark with deionized H<sub>2</sub>O, b) add 2 envelopes of DAKO<sup>®</sup> TBS, c) add 5 ml of DAKO TWEEN<sup>®</sup>, and d) replace lid and agitate 10 to 20 times.

#### EXAMPLE 7: PREPARATION OF SOLUTIONS FOR ANTIBODY DETECTION

- [284] Solutions for antibody detection are prepared using Vector<sup>®</sup> Biotinylated antibody (BA series), Vectastain<sup>®</sup> ABC-AP Kit (AK-5000), 10 mM sodium phosphate, pH 7.5, 0.9% saline (PBS), Vector<sup>®</sup> Red Alkaline Phosphatase Substrate Kit I (SK-5100), and 100 mM Tris-HCl, pH 8.2 Buffer. To prepare biotinylated antibody, add 10 ml of PBS to reagent tube, add 1 drop biotinylated antibody to the PBS, then mix gently. To prepare ABC, to 10 ml of PBS, add 2 drops each of Reagent A and Reagent B, mix immediately, then allow to stand 30 minutes before use. To prepare AP Red, which should be prepared immediately

before use, to 5 ml of Tris-HCl buffer, add 2 drops of Reagent 1 and mix well, add 2 drops of Reagent 2 and mix well, then add 2 drops of Reagent 3 and mix well.

#### EXAMPLE 8: DEPARAFFINIZATION AND REHYDRATION OF SAMPLES

[285] The purpose of this protocol is to remove paraffin from and rehydrate preserved tissues in preparation for IHC procedures. Materials and equipment include fume hood, vertical slide rack(s), three xylene (VWR #72060-088) baths, three 100% alcohol blend (VWR #72060-050) baths, two 95% alcohol blend (VWR #72060-052) baths, one 70% alcohol blend (VWR #72060-056) bath, and Tris-Buffered Saline (DAKO® S1968) + Tween® (DAKO S1966).

[286] Insert the slides into the vertical rack(s). Move slides through baths inside fume hood as follows:

15	Xylene 5 Minutes
	Xylene 5 Minutes
	Xylene 5 Minutes
	100% Alcohol 2 Minutes
	100% Alcohol 2 Minutes
	100% Alcohol 1 Minute
20	95% Alcohol 2 Minutes
	95% Alcohol 2 Minutes
	70% Alcohol 1 Minute

[287] Finally, place slides into a container with TBST.

#### EXAMPLE 9: STEAM METHOD OF TARGET RETRIEVAL

[288] The purpose of this protocol is to optimize antibody binding within paraffin embedded tissues. Materials and equipment included a steamer, deionized H<sub>2</sub>O, target retrieval solution, 10X concentrate (DAKO #S1699), 250 ml graduated cylinder, 15 ml graduated cylinder, staining dish(es), and deparaffinized and rehydrated tissue on microscope slides in immersed TBST. The procedure is to a) fill the steamer with deionized H<sub>2</sub>O to appropriate depth as indicated, b) turn the steamer on, c) in a graduated cylinder, measure 135ml of deionized H<sub>2</sub>O and pour into staining dish(es), d) pipette 15ml of target retrieval solution and release into deionized H<sub>2</sub>O, e) place the staining dish(es) into the basket of the steamer and heat for at least 10 minutes to preheat, f) add rack(s) containing tissue slides to heated target retrieval solution, g) cover and steam for 20 minutes, h) remove container from

steamer and let stand at room temperature for 20 minutes, i) transfer rack(s) with slides to container(s) of TBST, and j) slides are now ready for staining procedures.

#### EXAMPLE 10: ANTIBODY DETECTION

- 5 [289] The deparaffinized, rehydrated, and steamed (if needed) slides are loaded onto racks within a DAKO autostainer and then the autostainer is run according to the manufacturer's instructions. The slides are removed and the autostainer is turned off.

#### EXAMPLE 11: WESTERN BLOTTING

- 10 [290] The purpose of this protocol is to visualize the immunoreactivity of the antibodies described above against the particular GPCR on a western blot. Materials and equipment included western blot membrane, TBS Tween (TBST: 100 mM Tris-HCl pH 7.5, 150 mM NaCl, 0.1% Tween<sup>TM</sup> 20), 5% non-fat dried milk in TBST (blotto), antibody of interest (primary), peroxidase-conjugated AffiniPure goat anti-rabbit IgG (H+L) (secondary) –  
15 Jackson ImmunoResearch, ECL solution (Amersham Biosciences, Uppsala Sweden), film, developer D-19, fixer, rocking platform.

- [291] During the blotting procedure, the blot is kept wet at all times and on a substantially level surface. The Western blot is placed right-side up in 10 ml of blotto. The membrane is flipped over and the dish rocked so that the solution covered it. The membrane is then  
20 flipped back to the right side and solution is again rocked over it. The blot is then placed on a shaker for at least 1 hour. Ten ml of primary antibody are prepared by diluting 1:500 in blotto.

- [292] The blotto is removed from the Western blot and replaced with the primary antibody. The blot is flipped again and placed on the shaker for 1 hour. Secondary antibody  
25 and peroxidase-conjugated AffiniPure goat anti-rabbit IgG (H+L) are prepared 1:20,000 in 10 ml of blotto. The primary antibody is removed and the Western blot is washed 3 times with 10 ml of blotto. The blotto is removed and replaced with the secondary antibody solution. The blot is flipped and placed on the shaker for 1 hour. The secondary antibody is removed and the blot washed 2 times with 10 ml of blotto. The blotto is removed and the blot is  
30 washed 2 times with 10 ml TBST. ECL is prepared by combining equal amounts of Solution 1 and 2.

[293] The blotto is removed and 1 ml of ECL is placed on the blot. The blot is flipped and let sit for 1 minute. The blot is placed on plastic wrap and immediately covered with plastic wrap. The ECL is pressed out. The blot is placed on the film, then the film is developed.

5

[294] From the foregoing, it will be appreciated that, although specific embodiments of the invention have been described herein for purposes of illustration, various modifications may be made without deviating from the spirit and scope of the invention. Accordingly, the invention includes all permutations and combinations of the subject matter set forth herein

10 and is not limited except as by the appended claims.

## WHAT IS CLAIMED IS:

1. An isolated antigenic peptide according to any one of SEQ ID NOS. 692-2292.
- 5 2. An isolated antigenic peptide comprising an amino acid sequence that is at least about 90% identical to a sequence set forth in any one of SEQ ID NOS. 692-2292.
3. An isolated antigenic peptide that is an analog of an antigenic peptide according to any one of SEQ ID NOS. 692-2292.
4. An isolated antigenic peptide comprising a short antigenic amino acid  
10 sequence that is identical to at least 5 consecutive amino acids set forth in any one of SEQ ID NOS. 692-2292.
5. An isolated antigenic peptide comprising a short antigenic amino acid sequence that is identical to or contains no more than one conservative amino acid substitution over at least 7 consecutive amino acids set forth in any one of SEQ ID NOS. 692-  
15 2292.
6. A kit for the detection of antibodies against a particular GPCR in a sample comprising:
  - a) an isolated antigenic peptide according to any one of claims 1-5 and derived from the particular GPCR, and
  - 20 b) at least one of a reagent or a device for detecting the antibodies.
7. An isolated antibody having high specificity and high affinity or avidity for a particular GPCR comprising a peptide sequence that is identical to any one of SEQ ID NOS. 692-703, 713-730, 744-802, 807-820, 825-875, 880-889, 917-941, 950-964, 971-984, 989-993, 1010-1013, 1021-1024, 1029-1043, 1049-1052, 1057-1072, 1087-1113, 1124-1151,  
25 1161-1172, 1179-1187, 1198-1209, 1228-1231, 1245-1257, 1271-1279, 1304-1308, 1369-1372, wherein the antibody was produced using an isolated antigenic peptide comprising the peptide sequence that is identical to the any one of SEQ ID NOS. 692-703, 713-730, 744-802, 807-820, 825-875, 880-889, 917-941, 950-964, 971-984, 989-993, 1010-1013, 1021-1024, 1029-1043, 1049-1052, 1057-1072, 1087-1113, 1124-1151, 1161-1172, 1179-1187,  
30 1198-1209, 1228-1231, 1245-1257, 1271-1279, 1304-1308, 1369-1372.
8. An isolated antibody having high specificity and high affinity or avidity for a particular GPCR comprising a peptide sequence that is at least about 90% identical to any

one of SEQ ID NOS. 692-703, 713-730, 744-802, 807-820, 825-875, 880-889, 917-941, 950-964, 971-984, 989-993, 1010-1013, 1021-1024, 1029-1043, 1049-1052, 1057-1072, 1087-1113, 1124-1151, 1161-1172, 1179-1187, 1198-1209, 1228-1231, 1245-1257, 1271-1279, 1304-1308, 1369-1372, wherein the antibody was produced using the peptide sequence that is  
5 at least about 90% identical to the any one of SEQ ID NOS. 692-703, 713-730, 744-802, 807-820, 825-875, 880-889, 917-941, 950-964, 971-984, 989-993, 1010-1013, 1021-1024, 1029-1043, 1049-1052, 1057-1072, 1087-1113, 1124-1151, 1161-1172, 1179-1187, 1198-1209, 1228-1231, 1245-1257, 1271-1279, 1304-1308, 1369-1372.

9. An isolated antibody having high specificity and high affinity or avidity for a  
10 particular GPCR comprising a peptide sequence that is an analog to any one of SEQ ID NOS. 692-703, 713-730, 744-802, 807-820, 825-875, 880-889, 917-941, 950-964, 971-984, 989-993, 1010-1013, 1021-1024, 1029-1043, 1049-1052, 1057-1072, 1087-1113, 1124-1151, 1161-1172, 1179-1187, 1198-1209, 1228-1231, 1245-1257, 1271-1279, 1304-1308, 1369-1372, wherein the antibody was produced using an isolated antigenic peptide comprising the  
15 peptide sequence that is the analog to the any one of SEQ ID NOS. 692-703, 713-730, 744-802, 807-820, 825-875, 880-889, 917-941, 950-964, 971-984, 989-993, 1010-1013, 1021-1024, 1029-1043, 1049-1052, 1057-1072, 1087-1113, 1124-1151, 1161-1172, 1179-1187, 1198-1209, 1228-1231, 1245-1257, 1271-1279, 1304-1308, 1369-1372.

10. An isolated antibody having high specificity and high affinity or avidity for a  
20 particular GPCR comprising a peptide sequence that is identical to at least 5 consecutive amino acids set forth any one of SEQ ID NOS. 692-703, 713-730, 744-802, 807-820, 825-875, 880-889, 917-941, 950-964, 971-984, 989-993, 1010-1013, 1021-1024, 1029-1043, 1049-1052, 1057-1072, 1087-1113, 1124-1151, 1161-1172, 1179-1187, 1198-1209, 1228-1231, 1245-1257, 1271-1279, 1304-1308, 1369-1372, wherein the antibody was produced  
25 using a short isolated antigenic peptide comprising the at least 5 consecutive amino acids set forth in the any one of SEQ ID NOS. 692-703, 713-730, 744-802, 807-820, 825-875, 880-889, 917-941, 950-964, 971-984, 989-993, 1010-1013, 1021-1024, 1029-1043, 1049-1052, 1057-1072, 1087-1113, 1124-1151, 1161-1172, 1179-1187, 1198-1209, 1228-1231, 1245-1257, 1271-1279, 1304-1308, 1369-1372.

30 11. An isolated antibody specific for a particular GPCR comprising a peptide sequence that is identical to any one of SEQ ID NOS. 704-712, 731-743, 774-777, 803-806, 821-824, 876-879, 890-916, 942-949, 965-970, 985-988, 994-1009, 1014-1020, 1025-1028,



1044-1048, 1053-1056, 1073-1086, 1114-1123, 1152-1160, 1173-1178, 1188-1197, 1210-1227, 1232-1244, 1258-1270, 1280-1303, 1309-1368, 1373-1377, 1386-1389, 1394-1402, 1462-1482, 1496-1525, 1542-1549, 1557-1563, 1583-1649, 1656-1679, 1684-1688, 1693-1732, 1744-1752, 1765-1839, 1846-1854, 1855-1866, 1871-1917, 1926-1941, 1952-1955,  
 5 1960-1980, 1985-2141, 2152-2165, and 2170-2292, wherein the antibody was produced using an isolated antigenic peptide comprising the peptide sequence that is identical to the any one of SEQ ID NOS. 704-712, 731-743, 774-777, 803-806, 821-824, 876-879, 890-916, 942-949, 965-970, 985-988, 994-1009, 1014-1020, 1025-1028, 1044-1048, 1053-1056, 1073-1086, 1114-1123, 1152-1160, 1173-1178, 1188-1197, 1210-1227, 1232-1244, 1258-1270,  
 10 1280-1303, 1309-1368, 1373-1377, 1386-1389, 1394-1402, 1462-1482, 1496-1525, 1542-1549, 1557-1563, 1583-1649, 1656-1679, 1684-1688, 1693-1732, 1744-1752, 1765-1839, 1846-1854, 1855-1866, 1871-1917, 1926-1941, 1952-1955, 1960-1980, 1985-2141, 2152-2165, and 2170-2292.

12. An isolated antibody specific for a particular GPCR comprising a peptide  
 15 sequence that is at least about 90% identical to any one of SEQ ID NOS. 704-712, 731-743, 774-777, 803-806, 821-824, 876-879, 890-916, 942-949, 965-970, 985-988, 994-1009, 1014-1020, 1025-1028, 1044-1048, 1053-1056, 1073-1086, 1114-1123, 1152-1160, 1173-1178, 1188-1197, 1210-1227, 1232-1244, 1258-1270, 1280-1303, 1309-1368, 1373-1377, 1386-1389, 1394-1402, 1462-1482, 1496-1525, 1542-1549, 1557-1563, 1583-1649, 1656-1679,  
 20 1684-1688, 1693-1732, 1744-1752, 1765-1839, 1846-1854, 1855-1866, 1871-1917, 1926-1941, 1952-1955, 1960-1980, 1985-2141, 2152-2165, and 2170-2292, wherein the antibody was produced using the peptide sequence that is at least about 90% identical to the any one of SEQ ID NOS. 704-712, 731-743, 774-777, 803-806, 821-824, 876-879, 890-916, 942-949, 965-970, 985-988, 994-1009, 1014-1020, 1025-1028, 1044-1048, 1053-1056, 1073-1086,  
 25 1114-1123, 1152-1160, 1173-1178, 1188-1197, 1210-1227, 1232-1244, 1258-1270, 1280-1303, 1309-1368, 1373-1377, 1386-1389, 1394-1402, 1462-1482, 1496-1525, 1542-1549, 1557-1563, 1583-1649, 1656-1679, 1684-1688, 1693-1732, 1744-1752, 1765-1839, 1846-1854, 1855-1866, 1871-1917, 1926-1941, 1952-1955, 1960-1980, 1985-2141, 2152-2165, and 2170-2292.

30 13. An isolated antibody specific for a particular GPCR comprising a peptide sequence that is an analog to any one of SEQ ID NOS. 704-712, 731-743, 774-777, 803-806, 821-824, 876-879, 890-916, 942-949, 965-970, 985-988, 994-1009, 1014-1020, 1025-1028,

1044-1048, 1053-1056, 1073-1086, 1114-1123, 1152-1160, 1173-1178, 1188-1197, 1210-1227, 1232-1244, 1258-1270, 1280-1303, 1309-1368, 1373-1377, 1386-1389, 1394-1402, 1462-1482, 1496-1525, 1542-1549, 1557-1563, 1583-1649, 1656-1679, 1684-1688, 1693-1732, 1744-1752, 1765-1839, 1846-1854, 1855-1866, 1871-1917, 1926-1941, 1952-1955, 5 1960-1980, 1985-2141, 2152-2165, and 2170-2292, wherein the antibody was produced using an isolated antigenic peptide comprising the peptide sequence that is the analog to the any one of SEQ ID NOS. 704-712, 731-743, 774-777, 803-806, 821-824, 876-879, 890-916, 942-949, 965-970, 985-988, 994-1009, 1014-1020, 1025-1028, 1044-1048, 1053-1056, 1073-1086, 1114-1123, 1152-1160, 1173-1178, 1188-1197, 1210-1227, 1232-1244, 1258-1270, 10 1280-1303, 1309-1368, 1373-1377, 1386-1389, 1394-1402, 1462-1482, 1496-1525, 1542-1549, 1557-1563, 1583-1649, 1656-1679, 1684-1688, 1693-1732, 1744-1752, 1765-1839, 1846-1854, 1855-1866, 1871-1917, 1926-1941, 1952-1955, 1960-1980, 1985-2141, 2152-2165, and 2170-2292.

14. An isolated antibody specific for a particular GPCR comprising a peptide 15 sequence that is identical to at least 5 consecutive amino acids set forth any one of SEQ ID NOS. 704-712, 731-743, 774-777, 803-806, 821-824, 876-879, 890-916, 942-949, 965-970, 985-988, 994-1009, 1014-1020, 1025-1028, 1044-1048, 1053-1056, 1073-1086, 1114-1123, 1152-1160, 1173-1178, 1188-1197, 1210-1227, 1232-1244, 1258-1270, 1280-1303, 1309-1368, 1373-1377, 1386-1389, 1394-1402, 1462-1482, 1496-1525, 1542-1549, 1557-1563, 20 1583-1649, 1656-1679, 1684-1688, 1693-1732, 1744-1752, 1765-1839, 1846-1854, 1855-1866, 1871-1917, 1926-1941, 1952-1955, 1960-1980, 1985-2141, 2152-2165, and 2170-2292, wherein the antibody was produced using a short isolated antigenic peptide comprising the at least 5 consecutive amino acids set forth in the any one of SEQ ID NOS. 704-712, 731-743, 774-777, 803-806, 821-824, 876-879, 890-916, 942-949, 965-970, 985-988, 994-1009, 25 1014-1020, 1025-1028, 1044-1048, 1053-1056, 1073-1086, 1114-1123, 1152-1160, 1173-1178, 1188-1197, 1210-1227, 1232-1244, 1258-1270, 1280-1303, 1309-1368, 1373-1377, 1386-1389, 1394-1402, 1462-1482, 1496-1525, 1542-1549, 1557-1563, 1583-1649, 1656-1679, 1684-1688, 1693-1732, 1744-1752, 1765-1839, 1846-1854, 1855-1866, 1871-1917, 1926-1941, 1952-1955, 1960-1980, 1985-2141, 2152-2165, and 2170-2292.

30 15. A kit for the detection of antibodies against the particular GPCR of claim 5 comprising:

a) an isolated antibody according to any one of claims 7-14, and

- b) at least one of a reagent or a device for detecting the antibody.
16. An assay for the detection of a particular GPCR in a sample, comprising:
- a) providing an isolated antigenic peptide according to any one of claims 1-5,
- b) contacting the isolated antigenic peptide with the sample under conditions suitable  
5 and for a time sufficient for the antigenic peptide to bind to one or more antibodies specific  
for the particular GPCR present in the sample, to provide an antibody-bound antigenic  
peptide, and
- c) detecting the antibody-bound antigenic peptide, and therefrom determining whether  
the sample contains the particular GPCR.
- 10 17. The assay of claim 16 further comprising the step of binding the isolated  
antigenic peptide or the antibody to a solid substrate.
18. The assay of claim 16 or 17 wherein the sample is an unpurified sample.
19. The assay of any one of claims 15-18 further comprising, prior to the  
contacting, obtaining the sample from a human being.
- 15 20. The assay of any one of claims 15-19 wherein the assay is selected from the  
group consisting of a countercurrent immuno-electrophoresis (CIEP) assay, a  
radioimmunoassay, a radioimmunoprecipitation, an enzyme-linked immuno-sorbent assay  
(ELISA), a dot blot assay, an inhibition or competition assay, a sandwich assay, an  
immunostick (dip-stick) assays, a simultaneous assay, an immunochromatographic assay, an  
20 immunofiltration assay, a latex bead agglutination assay, an immunofluorescent assay, a  
biosensor assay, and a low-light detection assay.
21. An isolated nucleic acid molecule encoding an antigenic peptide according to  
any one of SEQ ID NOS. 692-2292.
22. The isolated nucleic acid molecule according to claim 21 wherein the  
25 molecule encodes a naturally occurring human antigenic peptide.
23. An isolated nucleic acid molecule encoding an antigenic peptide that is at least  
about 90% identical to any one of the antigenic peptides set forth in SEQ ID NOS. 692-2292.
24. The isolated nucleic acid molecule according to claim 23 wherein the  
antigenic peptide is at least about 95% identical to the antigenic peptide.
- 30 25. The isolated nucleic acid molecule according to claim 23 or 24 wherein the  
molecule encodes a naturally occurring human antigenic peptide.

26. A process for producing an isolated polynucleotide comprising hybridizing a nucleotide encoding an antigenic peptide according to any one of SEQ ID NOS. 692-2292 to genomic DNA under highly stringent conditions and isolating the polynucleotide detected with the nucleotide.

5 27. A method of identifying an amino acid sequence for an antigenic peptide from a candidate polypeptide sequence wherein the antigenic peptide has a length of about 5 to about 100 amino acids, the method comprising:

a) searching the candidate polypeptide sequence using a comparison window of the length, and

10 b) selecting against amino acid sequences of the length and having at least 3 characteristics selected from the group consisting of 1) at least two consecutive prolines, 2) at least two consecutive serines, 3) at least two consecutive lysines, 4) at least two consecutive arginines, 5) at least two consecutive aspartic acids, 6) at least two consecutive glutamic acids, 7) methionine, 8) tryptophan, and 9) at least five consecutive amino acids comprising  
15 no charged amino acids.

28. The method of claim 27 wherein the method further comprises selecting against at least 5 of the characteristics.

29. The method of claim 27 wherein the method further comprises selecting against at least 7 of the characteristics.

20 30. The method of claim 27 wherein the method further comprises selecting against the 9 characteristics.

31. The method of any one of claims 27-30 wherein the method further comprises:

c). selecting against amino acid sequences of the length and having at least one of the following additional characteristics 1) sequences having at least 5 consecutive amino  
25 acids that are identical to an alternative amino acid sequence from an alternative polypeptide that is different from the candidate polypeptide, 2) posttranslational modification sites, and 3) highly hydrophobic sequences.

32. The method of claim 31 wherein the posttranslational modification sites are phosphorylation or glycosylation sites.

30 33. The method of claim 31 or 32 wherein the method further comprises selecting against at least 2 of the additional characteristics.

34. The method of claim 31 or 32 wherein the method further comprises selecting against the 3 additional characteristics.

35. The method of any one of claims 27-34 wherein the method further comprises performing a BLAST-type or a FAST-type analyses for the candidate polypeptide sequence.

5 36. The method of any one of claims 27-34 wherein the method further comprises performing a BLAST analysis for the candidate polypeptide sequence.

37. The method of any one of claims 27-36 wherein the antigenic peptide has a length from 6 amino acids to about 50 amino acids.

10 38. The method of any one of claims 27-36 wherein the antigenic peptide has a length from 6 amino acids to about 20 amino acids.

39. The method of any one of claims 27-36 wherein the antigenic peptide has a length of about 20 amino acids.

40. The method of any one of claims 27-39 wherein the polypeptide is a protein.

15 41. The method of any one of claims 27-40 wherein the polypeptide is a human protein.

42. The method of any one of claims 27-41 wherein the polypeptide is a naturally occurring protein.

43. An isolated antigenic peptide that is specific for the candidate polypeptide of any one of claims 27-42 that is produced according to the method of any one of claims 27-42.

20 44. An antigenic peptide that is at least about 90% identical to the isolated antigenic peptide of claim 43.

45. An isolated antigenic peptide that is an analog of the isolated antigenic peptide of claim 43.

25 46. An isolated antigenic peptide comprising a short antigenic amino acid sequence that is identical to at least 5 consecutive amino acids of the isolated antigenic peptide of claim 43.

30 47. An isolated antigenic peptide comprising a short antigenic amino acid sequence that is identical to or contains no more than one conservative amino acid substitution over at least 7 consecutive amino acids of the isolated antigenic peptide of claim 43.

48. A kit for the detection of antibodies against the candidate polypeptide of any one of claims 43-47 in a sample comprising:

- a) an isolated antigenic peptide according to any one of claims 43-47 and derived from the candidate polypeptide, and
- b) at least one of a reagent or a device for detecting the antibodies.
49. An isolated antibody specific for a candidate polypeptide comprising an amino acid sequence that is identical to the amino acid sequence of the isolated antigenic peptide of claim 43, wherein the antibody was produced using the isolated antigenic peptide of claim 43.
50. An isolated antibody specific for a candidate polypeptide comprising an amino acid sequence that is identical to the amino acid sequence of the isolated antigenic peptide of claim 44, wherein the antibody was produced using the isolated antigenic peptide of claim 44.
51. An isolated antibody specific for a candidate polypeptide comprising an amino acid sequence that is identical to the amino acid sequence of the isolated antigenic peptide of claim 45, wherein the antibody was produced using the isolated antigenic peptide of claim 45.
52. An isolated antibody specific for a candidate polypeptide comprising an amino acid sequence that is identical to the amino acid sequence of the isolated antigenic peptide of claim 46, wherein the antibody was produced using the isolated antigenic peptide of claim 46.
53. An isolated antibody specific for a candidate polypeptide comprising an amino acid sequence that is identical to the amino acid sequence of the isolated antigenic peptide of claim 47, wherein the antibody was produced using the isolated antigenic peptide of claim 47.
54. The isolated antibody of any one of claims 49-53 wherein the antibody has high specificity and high affinity for the candidate polypeptide.
55. A kit for the detection of antibodies against the candidate polypeptide of any one of claims 43-47 comprising:
- a) an isolated antibody according to any one of claims 49-53, and
- b) at least one of a reagent or a device for detecting the antibody.
56. An assay for the detection of a candidate polypeptide in a sample, comprising:
- a) providing an isolated antigenic peptide according to any one of claims 43-47,
- b) contacting the isolated antigenic peptide with the sample under conditions suitable and for a time sufficient for the antigenic peptide to bind to one or more antibodies specific for the candidate polypeptide present in the sample, to provide an antibody-bound antigenic peptide, and
- c) detecting the antibody-bound antigenic peptide, and therefrom determining whether the sample contains the candidate polypeptide.

57. The assay of claim 56 further comprising the step of binding the isolated antigenic peptide or the antibody to a solid substrate.

58. The assay of claim 56 or 57 wherein the sample is an unpurified sample.

59. The assay of any one of claims 56-58 further comprising, prior to the  
5 contacting, obtaining the sample from a human being.

60. The assay of any one of claims 56-59 wherein the assay is selected from the group consisting of a countercurrent immuno-electrophoresis (CIEP) assay, a radioimmunoassay, a radioimmunoprecipitation, an enzyme-linked immuno-sorbent assay (ELISA), a dot blot assay, an inhibition or competition assay, a sandwich assay, an  
10 immunostick (dip-stick) assays, a simultaneous assay, an immunochromatographic assay, an immunofiltration assay, a latex bead agglutination assay, an immunofluorescent assay, a biosensor assay, and a low-light detection assay.

61. An isolated nucleic acid molecule encoding an antigenic peptide according to any one of claims 43-47.

15 62. The isolated nucleic acid molecule according to claim 61 wherein the molecule encodes a naturally occurring human antigenic peptide.

63. An isolated nucleic acid molecule encoding an antigenic peptide that is at least about 90% identical to any one of the antigenic peptides set forth in claims 43-47.

64. The isolated nucleic acid molecule according to claim 63 wherein the  
20 antigenic peptide is at least about 95% identical to the antigenic peptide.

65. The isolated nucleic acid molecule according to claim 63 or 64 wherein the molecule encodes a naturally occurring human antigenic peptide.

66. A process for producing an isolated polynucleotide comprising hybridizing a nucleotide encoding an antigenic peptide according to any one of claims 43-47 to genomic  
25 DNA under highly stringent conditions and isolating the polynucleotide detected with the nucleotide.

SEQ ID NO:	LSID	Gene	Source ID	Sequence	Code	SpeciesName
526	160397	Latrophilin-2	NP_036434.1	<p>                     MVSSGCRMRS LWFIIIVISFL PNTEGFSRAA LPFGLVRREL SCEGYSIDLR CPGSDVIMIE                      SANYGRITDDK ICDAVPFQME NTDCYLPDAF KIMTQRNNR TQCIVVTGSD                      VFDPDPCGTY KYLEVQYECV PYFVCPGTL KAIVDSPCIY EAEQKAGAWC                      KDPLQAADKI YFMPWTPYRT DTLEJYASLE DFQNSRQITTT YKLPNRVDGT                      GFVVYDGAUF FNKERTRNIV KFDLRTRIKS GEAIINYANY HDTSPYRWGG                      KTDIDLA VDE NGLWVIYATE QNNGMVISQ LNPYTLRFEA TWETVYDKRA                      ASNAFMICGV LYVVRVYQD NESETGKNSI DYIYNTRLNR GEYVDVFPFN                      QYQYIAA VDY NPRDNQLYVW NNNFLRYSL EFGPPDPAQV PTTAVTITSS                      AELFKTHIST TSTTSQKQPM STTVAGSQEG SKGTKPPPAV STTKIPPITN IFPLPERFCE                      ALDSKGIKWP QTQRGMVMVER PCPKGTRGTA SYLCMISTGT WNPKGPDLSN                      CTSHWVNQLA QKIRSGENAA SLANELAKHT KGPVFAGDVS SSVRLMEQLV                      DILDAQLOEL KPSEKDSAGR SYNKAIVDTV DNLLRPEALE SWKHMSSEQ                      AHTATMLLDT LEEGAFVLAD NLEPTRVSM PTENIVLEVA VLSTEGQIQD                      FKFLPGIKGA GSSIQLSANT VKQNSRNGLA KLVIYIRSL GQFLSTENAT IKLGADFIGR                      NSTIAVNSHV ISVSINKESS RVYLTDPVLF TLPHIDPDNY FNANCSFWNY                      SERTMMGYWS TQGCKLVDTN KTRTTCACSH LTNFAILMAH REIAYKDGTVH                      ELLLTVITWV GIVISLVCLA ICIFTCFFR GLQSDRNTH KNLCNLFIA EFILIGIDK                      TKYAIAACPIF AGLLHFFLA AFAWMCLEGV QLYLMLVEVF ESEYSRKKYY                      YVAGYLFPAT VVGVSAAIDY KSYGTEKACW LHVNDYFIWS FIGPVTFIL LNIIFLVITL                      CKMVKHSNTL KPDSSRLNI KSWVLGAFAL LCLLGLTWSF GLFINEETI                      VMAYLFTFN AFQGVFIF HCALQKKVRK EYKCFRHSY CCGGLPTESP                      HSSVKASTTR TSARYSSGTQ SRIRRMWNDT VRKQSESSFI SGDINSTSTL                      NOGHSNNAR DTSAMDITPL NGNFNNSYSL HKGDYNDVSQ VVDCGLSLND                      TAFEKMIISE LVHNNLRGSS KTHNLELTL VQPVIGGSS EDDAIVADAS                      SLMHSDNPGL ELHHKELEAP LIPQTHSL YQPKKKVKSE GTDSYVSQLT                      AEAEHLQSP NRDSL YTSMP NLRDSPYPES SPDMEEDLSP SRSENEIDIY                      YKSMPNLGAG HQLQMCYQIS RGNSDGYIIP INKEGCIPEG DVREGQMQLV TSL                      ccgcggcctgg gagacagcga gccagagctt ggggttgtt gccagagcca cggcgggggc tggggcgcagt ggcggcgaig                      gctgaaggct ggcctctgca acctgaaga gccctgcat tgaaggcca gggacagaga gaccggigcg atggcagagc                      gcggcccccgc ccgctgcgcc gggccggccc ggcctggcctg agccgcgcga ggaagcggggc tgcctcgcg cgtccatgga                      gcagcgggaa gggcgaaact ccgagcgc ccgctccctg gccctgcgcg ccgactgcctg aagggggcga gccgcgcgcg                      accgcgcagg aagagacccc cgtccagcc cgcaggccgg ctgcccgggg ccggcggggg acatcgagg gcaagcggagc                      gagcagcgc ccgggagagg ccggcgccgg aggcggccgc agcaalgccg gggccgctag ggcctcctctg ctctctgoc                      ctggggctgc tggctcgcgc ccggcccgag ggcgcgcgcg ccgctctctg ccgcggccccc tgcagctgcg accggcagccg                      tgggtggac tgcctcggga agggcgtag ggcgctgccc gaggggctca gcgcttcac ccaagcgctg gataatcga                      tgaacaacat tactcagtg ccagaagatg caattaagaa ctctctt ctagaagagc tacaatggc gggcaacgac ctctctta                      tcaacccaaa ggccttgtct ggggtgaag aactcaaat tctaacgctc cagaataac agtgaatac agtaccocagt                      gaagccattc gagggcctgag tctttgcagt tctttgcagt tagatgccaa ccalatcccg aggcagctt tgaaggactt                 </p>	P	Homo sapiens
527	160411	G Protein-Coupled Receptor GPR48	NM_018490	<p>                     YKSMPNLGAG HQLQMCYQIS RGNSDGYIIP INKEGCIPEG DVREGQMQLV TSL                      ccgcggcctgg gagacagcga gccagagctt ggggttgtt gccagagcca cggcgggggc tggggcgcagt ggcggcgaig                      gctgaaggct ggcctctgca acctgaaga gccctgcat tgaaggcca gggacagaga gaccggigcg atggcagagc                      gcggcccccgc ccgctgcgcc gggccggccc ggcctggcctg agccgcgcga ggaagcggggc tgcctcgcg cgtccatgga                      gcagcgggaa gggcgaaact ccgagcgc ccgctccctg gccctgcgcg ccgactgcctg aagggggcga gccgcgcgcg                      accgcgcagg aagagacccc cgtccagcc cgcaggccgg ctgcccgggg ccggcggggg acatcgagg gcaagcggagc                      gagcagcgc ccgggagagg ccggcgccgg aggcggccgc agcaalgccg gggccgctag ggcctcctctg ctctctgoc                      ctggggctgc tggctcgcgc ccggcccgag ggcgcgcgcg ccgctctctg ccgcggccccc tgcagctgcg accggcagccg                      tgggtggac tgcctcggga agggcgtag ggcgctgccc gaggggctca gcgcttcac ccaagcgctg gataatcga                      tgaacaacat tactcagtg ccagaagatg caattaagaa ctctctt ctagaagagc tacaatggc gggcaacgac ctctctta                      tcaacccaaa ggccttgtct ggggtgaag aactcaaat tctaacgctc cagaataac agtgaatac agtaccocagt                      gaagccattc gagggcctgag tctttgcagt tctttgcagt tagatgccaa ccalatcccg aggcagctt tgaaggactt                 </p>	A	Homo sapiens



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P Homo sapiens

P

528 160411 G Protein-Coupled Receptor GPR48 NP\_060960.1

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A Homo sapiens

A

529 160435 LS160435 Receptor AX147830

530	160435	LS160435 Receptor	LR80	<p>gcttgccc caacaattc gtgtctctgg cgcacalcgt gtagccgcttg ttiacggca agagtactia ccacgtgtac  aagctcacg tgtgtctcag ctgtctcaac aactgtctgg accgtgtgtg ttiacttiti ggttccggg aattccaggt ggccttgagg  gaattattgg gcttgccggcg ggtgtcccca gacaccttgg acacggccg cgaagaccct tictccgca ggaaccagtc  cgttgccctc gaggccgggtg cgcaccttga agggatggag ggaagccacca gggccggcct ccagaggcag gagggtgtg  tcgtgtcc gggggcgag ctgtggagc cggggcgca gcttggaggga tccagggggc catgggaggg ccacgggtgc  agaggticag ggaagacagc tgcgtgtc ccaggcactg cagggcccg gtaggggaagg gttccaggc tttatctc  ccaggcactg cagaggcacc ggtgagggaag ggttccagg cttcacacag gtagagaaa caagcaaaag ccagcagcgc  acagggtgt tttatctg cagagggtgc ctgtctct ctgtgtcagg ggaagcttg tgtcacacg cccggctaat tttgtatt  ttttttag agctgggtg tcccccga gctctttag cactctac acctgtccat accggaggt ggalatticaa  ccagcccac cgtctaccg actcgttgc tggatact ctgtggggcga actgggagcc ccattccag ctctctcc  tgtgtacat gtcctttag acactgtcc ataccggag aggtattc aaccagccc accgcttacc cgtctggt  tctggatalc ctgtgtggc gaactgtcag cccattccc agctctctc cgtgtcaga tctgtccctia gttgtgttc tggcctctc  cattctctc caggggttct ggttccgta gcccgggtga cggcgaatt tctgttatt tcatcagg gcatgtgtg tctgtgtg  ggaattctc tticagaggga ggccttgggg ctctgtcag tcatgtact tctgtgcca ctccctca cacacaccc  ccctcgtc cgaattc</p>	P	Homo sapiens
531	160889	Platelet Activating Receptor Homolog (H963)	NM_013308	<p>MQVPNSTGPD NATQLMLRNP AIAVALPVVY SLVAAVSIPG NLFSLWVLCR  RMGPRSPSVI FMNLSVTDL MLASVLPFQI YYHCNRHHWV FGVLLCNVVT  VAFYANNMYSS ILTMTCSIVE RFLGVLYPLS SKRWRRRRYA VAACAGTWLL  LLTALSPLAR TDLTPVHAL GIITCFDVLK WTMPLSVAMW AVFLTFIL LFLIPFVTV  ACYTATILKL LRTEEAHGRE QRRRAVGLAA VLLAFVTCF APNNFVLLAH  IVSRIFYGKS YYHYVKLTLC LSLNNCLDP FVYFASREF QLRLREYLGC  RRVPRDRLDT RRESLFSART TSVRSEAGAH PEGMEGATRP GLQRQESVF  gaattggcc aaaggccct atgtctct gaagacttgc agcaagctt gctggagctc acagaagata gccccaggt  ttggagtg tttgaatt gattctgaga tcatgtgac tgaagtgga tctgtgctt alaattacc agctacaaa ccttggagtc  ttgaaatt ttcttca atagcagtc atcttacti tccctcaga tgaacaacag ttgttctc tgcctgtt ataaagatc  ggagccattc acgtatttt ttattagt ttctgtt ggaattang ggaattgttt tgaaccttg gctttatc agaagaatc  gaatcacagg tgtgtgaga tcatctaat taattgtct acagccggtt tctgtctac tctgtcatta ccagtgaaaa tttgtgtga  cttgggttg gcaccttga agctgaagat attccactgc caagtacag cctgcctcat ctatacaat atgtattat caattact  cttagcatt gtcagcattg accgtgtct tcatgtgaca cacagctgca agactacag aatacaagaa cccggattg  ccaaaatgat atcaaccgtt ggttggtctaa tggctctct tataatggg ccaaatatga tgaattccat caaagacalc aaggaaaaagt  caaatgtggg tttatggag tttaaaagg aattgggaag aaattggcat tttgtgaca atticatag ttagcaata ttttaaat  tctagccat catttata tcaattgoc ttgtattg acagcttacc agaaacaaag ataatgaaa ttacccaat gtagaaaaag  ctctatcaa calacttta gtgaccagg gctacatcat atgtttgt cttatccaca ttgtccgaat cccgtatacc ctacccaga  cagaagtcat aactgattgc tcaaccaggga ttacattct caaagccaaa gagggtacac tgtctgtgc tgtgtgaaac ctgtgttgg  atcctatct gtactatcac ctctcaaaag cttccgtc aaaggctcat gagaatttg cctacctaa agagaccaag  gctcagaaaag aaaaattaaag atgtgaaaat aatgcataaa agacaggatt tttgtgcta ccaattctg cctiactgga ccataaagt  aattatgct ttagagata aaaaaaaa aaagcggcc gc</p>	A	Homo sapiens
532	160889	Platelet Activating Receptor	NP_037440.1	<p>MTNSSFFCPV YKDLPEFTYF FYLVFLVGI GSCFATWAFI QKNTNHRCSV  IYLNLLTAD FLTLALPVK IVVDLGVAPW KLKIFHCQVT ACLIYNMYL SIIFLAFVSI  DRCLQLTHSC KIYRIQEPGF AKMISTVVWL MVLLIMVPNM MIPKDIKEK</p>	P	Homo sapiens

Homolog (H963)			
533	161024	Protein A	NM_019858
			SNVGCMEFKK EFGRNWHLLT NFICVAIFLN FSAILISNC LVIRQLYRNK DNENYPNVKK ALINILLVTT GYICFVPHY IVRIPYTL SQ TEVITDCSTR ISLFKAKEAT LLLA VSNLCF DPILYYHLSK AFRSKVTEIF ASPKETKAQK EKLRCENNA gagggagagag gggggggcag ctggagccgg gagggcaggag gagcccgaga gagccggcgc ggggagtgccgg tctccatggc agtgctgggc g-cagccggag agagcctgc cagggggcgt agcccccac ccaaatccct gggggcaltca gaagattct gactgggtcaa gaaccaggag caaagagagc ctgggaagtc cagctagggg accaagaacc ccagccagc ctcatgttg ggaaagttag cagcttgct gcccaltcaa ttgcaggagat gcttaaggaa gggccggccc agtatgaaag ctgaggattg ccctgtcga ccctagct cctccctgc ccttaccat tgcctcagc tgggtccatc atgcaatgct gagcactggg gtgagcctgg gggcagcctg cctgtgaca gggcgagagat tgtgggggaltc atgggaggtgt ttgtgagtg ggcctctggg tggagacctag ccccccac cacaagctc aaaggggggggg gggggctgaggg ataggatggc tggggggcggg gggggggcag agggagggcct cctgcgctc aacgcatgt cctggcctggc ctggggcctc ctggcgctgc tggccaatgc ctggaltc ctcagcatct cggccaagca gcagaagcac aagccactgg agctcgtct ctgttccca ggggggcacac acatacat ggcagctgtg cccctacca cctttgcgt ggtgtcagctg cgtcgtcagg cttctccga ctatgactgg aacgagagta tctgcaagg ctgtgttc actactaca cctggcgct gggccactgc ttacgggtcg cctccctc ctaccatggc atgtggatgg tgcgtggcc cgtcaactac cgcctcagca acgccaagaa gcaggcactg catgctgctca tggggcaltg gatgtcagc ttcatctct ccacactgct ctccatggc tggccaacaa acggcgagag ctactatggc cggggctggc agttcatagt ctcaagatc ggcctcggct ttggcggttg ctacgctc ttgctactg ggggaattgt catgggtctg gctgtgtgg ccatcactt ctaccagca ctgtggccc gggcccgagg ggtcgggagc gcccgggagc tggggggggg tgggggggac aaagcgggtg gggcaggggc ctgggtacc cggccagctt ttgaggtaac agccattgtg gttgaggatg cccgggggaa gcccgggtcc tgcgtggatg gctcgggagc tggccaagca tccctgcagg tcaacaact ggtcaggcgg cctgtcttc tctatgact actcacaggg gttgcccact tgggtgtgag cttctctcc ctcaagtcgg actcggcgcc cccctggatg gtgtgtgtg tgcgtgtg ctccatggca cagacgctg tgcgtccct ctctatgg tctgtcggc gctacggcg cgacgtgc acagtgtggg agcaatgct gggccatg tctgagagag atggagatga cgtatggggc tgtgacgact atgcaagagg ccgagttgc aaagtgtct ttatgctaa cggagccaca gggccagggga gcccggggacc cggccagggtg aagctgtgc ctggaaagca catgcttc cctctctg agagagttca ctactacag gttccctat cccggcgct gtccatgat gagacaaca tcttcttac cctcgggaa ccaggctct tccgtcaca gttgtcatcc tctgatgaca tccgggtct ccagccag agccggggcc tggggggct tctgtgagac ctggggacaa gacacaggtt gggagggcag gagggagag aagagagctga aggtgtggggg ctggccagcc ttgccaatt ctggagagat ggggttctgg ggtcaggtg gggacccca cggggctct gcttctcc gggagagatc accacttca tggatgagac acctgtct tctccgactg cctcacagg gcatctct cgtcggccc gggcactggg ccttcacc cggcgactct ccttgggtc ccttgagagc agagccgtg gactcttt gggactaagc gcaggggagac gctgtccct gacgggggggt gaagaaagtg caagggcctg gggaggtatc tggggccag gcaacccat ctttcccag ctgacctgt gaggccagc aggcctgtg aactcagagg agaaagctg agtgaagtaac acctatct gggcgagagt agggcagctg cctccagact ctggggagac gggcgctaga ttggggctc agaaaggcct gctctctcc atccagatga ccagatggcc tactcagctt ccatccccc tagcaatg tattaaagc tgaagtgtg ccattg
			Homosapiens
534	161024	Protein A	NP_062832.1
			MARGGAGAE ASLRNSALSW LACGLLALLA NAWILSISA KQKHKPLEL LLCFLAGTH LMAAVPLTTF AVVQLRRQAS SDYDWNESIC KVFVSTYTL ALATCFTVAS LSYHRMWMVR WPNYRLSNA KKQALHAVMG IWMVSFILST LPSIGWHNNG ERY YARGCQF IVSKIGLGFV VCFSLLLGG IVMGLVCVAI TFYQITLWARP RRARQARRVG GGGGTAKAGP GALGTRPAFE VPAIVVEDAR
			Homosapiens

535	161214	Galanin Receptor GalR3	NM_003614	<p>GKRRSSLDGS ESAKTSLQVT NLVSAIVFLY DSLTGVPIV VSFSLKSDS  APPWMVLAVL WCSMAQTLLL PSFIWSCERY RADVRTVWEQ CVAIMSEEDG  DDGGGDDDYA EGRVCKVRFD ANGATPGSR DPAQVKLLPG RHMLFPPLER  VHYLQVPLSR RLSHDETNF STPREGSFL HKWSSDDIR VLPQAQRALG  GPPEYLQQRH RLEDEEDEE AEGGGLASLR QFLESGLVGS GGGPPRGPGF  FREEITTFID ETPLSPSTAS PGHSPPRRPR LGLSPRRLSL GSPESRAVGL PLGLSAGRRC  SLTGGESAR AWGGSWGPNG PIFPQLTL</p> <p>tcaccagctgc ccgtctgaig gggagatggc tgaatgccag aacatttcac tggacagccc agggagtgctg gggggccgtgg  cagtgctgt ggtctttgcc ctaatttc tgcctggcac agtgggcaat gggcttggctg tggcagtgct cctcagcct  ggccggagtg cctggcagga gctggcagc accaggacc tggctacct caacctggcg gttggctggacc tctgttcat  ccgtgtctgc gtgcccctcc agggccacct ctacagctg gattgctggc tcttggggc ccctgtctgc aaggccgtgc  accgtctcat ctactcac atgtacgcca g-cagctttac gctggctgt gttccgtggc acagggtacct gggccgtgcgg  cacccgtctgc gctggcgcg cctggcgacg ccggcgtaacg ccggcgccgc agtggggctg gttggctgc tggcgggcgt  cttctggcg cctactca gctactacg caccgtgcgc taccggcg tggagctctg cgtggccgc tgggagggacg  cgccggccg cgccctggac gttggccacct tggctggcg clactgtctg cctgtggctg tgggtggacct gggctacggg  cgacagctgc gcttctgtg gggccggctg ggtccggcg gggcgggcg gggcgagggcg gggcgagggcg gggcgagggcg  cgcgggcg gctatgtctg cggtggcg gctctacggc cttgtgtgg gttccgacca cggctctac cttgtgtct  ggtacggcg cttggcttc agccggcca cctacggctg ccggctggc tcaactggc tggcctacg caactctgc  ctaacccg tggctacg gctggctgc cggcacttc cggcgcgcti ccggcgctg tggcggtgc gggcgcgacg  ccggccacct gggcgcgcg ccttggctg cgtccggccc gctctctgg gggcgagggc cttggccggg gacggccggc  ctagggggag gctgtgtgt gttggcgcc agggccggg gggcgaggg gggcgaggg gggcgaggg gggcgaggg  ggacgggaat aaacctggc gctgggactc ggcctg  MADAQNISLD SPGSVGAVAV PVVFAFLFL GTVGNGLVLA VLLQGPSAW  QEPGSTTDLF ILNLAVADLC FILCCVPFQA TTYTLDAWLF GALVCKAVHL  LIYLTMYASS FTLAAVSVDY YLAVRHPLRS RALRTPRNR AA VGLVWLLA  ALFSAPYLSY YGTVRYGALE LCVPAWEDAR RRALDVATFA AGYLLPVAVV  SLAYGRTLRF LWAAVGPAGA AAEEARRRAT GRAGRAMLAV AALYALCWGP  HHALLCFWY GRFAFSPATY ACLASHCLA YANSCLNPL V YALASHFRA  RFRRLWPCGR RRRHRARRAL RVRPSSGP PGCPGDARPS GRLLAGGGQG  PEPREGVHG GEAAARGPE</p> <p>atggcgctga ccccgagtc cccgagcagc tcccgtggc tggcgccac cggcagctct gggcgggagc cgcctggcg  ccccaacga accctcaaca gctctgggc cagcccgacc gaggccagct cctggagga cctgggtggc acgggcaaca  ttgggactct gctgtggc atggcggtg tggcggtg gggcgagcc taccgctg tggctacgt ccgtccctg  cgtgggtg cctcagta cgtctacgt gtaacctg cgtggcgga cgtgtgtac cgtctacga tcccttcal  cgtggccac taccgaaca agagtgga cttggggac gttggctg cggctgtct cggcctggac ttcctgacca  tgcagccag cacttcac gtagccgta tgaagcaga gtagctacgt cgggtgtg cggcgctg caccgtggc  cgcccaagg gctacggca gctgtggcg cttgggacct gttggctg cgtgtggc agctgtggc tgaigtggc  cattggctg gttggcggg gttcccaagg cttgtggc ccccggtgg gggcgaggg gggcgaggg gggcgaggg  tgccttgc caccagc gggggggg ggtgtgtat cggcggtc taccggcg tggcgggc caccggc  tgcagcgcg cctcttcaa gggggggg cggcgggg cggcggtg gggcggtg cttgggacgt tgcgtctt</p>	A	Homo sapiens
536	161214	Galanin Receptor GalR3	NP_003605.1	<p>gagacgggaat aaacctggc gctgggactc ggcctg  MADAQNISLD SPGSVGAVAV PVVFAFLFL GTVGNGLVLA VLLQGPSAW  QEPGSTTDLF ILNLAVADLC FILCCVPFQA TTYTLDAWLF GALVCKAVHL  LIYLTMYASS FTLAAVSVDY YLAVRHPLRS RALRTPRNR AA VGLVWLLA  ALFSAPYLSY YGTVRYGALE LCVPAWEDAR RRALDVATFA AGYLLPVAVV  SLAYGRTLRF LWAAVGPAGA AAEEARRRAT GRAGRAMLAV AALYALCWGP  HHALLCFWY GRFAFSPATY ACLASHCLA YANSCLNPL V YALASHFRA  RFRRLWPCGR RRRHRARRAL RVRPSSGP PGCPGDARPS GRLLAGGGQG  PEPREGVHG GEAAARGPE</p> <p>atggcgctga ccccgagtc cccgagcagc tcccgtggc tggcgccac cggcagctct gggcgggagc cgcctggcg  ccccaacga accctcaaca gctctgggc cagcccgacc gaggccagct cctggagga cctgggtggc acgggcaaca  ttgggactct gctgtggc atggcggtg tggcggtg gggcgagcc taccgctg tggctacgt ccgtccctg  cgtgggtg cctcagta cgtctacgt gtaacctg cgtggcgga cgtgtgtac cgtctacga tcccttcal  cgtggccac taccgaaca agagtgga cttggggac gttggctg cggctgtct cggcctggac ttcctgacca  tgcagccag cacttcac gtagccgta tgaagcaga gtagctacgt cgggtgtg cggcgctg caccgtggc  cgcccaagg gctacggca gctgtggcg cttgggacct gttggctg cgtgtggc agctgtggc tgaigtggc  cattggctg gttggcggg gttcccaagg cttgtggc ccccggtgg gggcgaggg gggcgaggg gggcgaggg  tgccttgc caccagc gggggggg ggtgtgtat cggcggtc taccggcg tggcgggc caccggc  tgcagcgcg cctcttcaa gggggggg cggcgggg cggcggtg gggcggtg cttgggacgt tgcgtctt</p>	P	Homo sapiens
537	161221	Urotensin-II Receptor (GPR14)	NM_018949	<p>atggcgctga ccccgagtc cccgagcagc tcccgtggc tggcgccac cggcagctct gggcgggagc cgcctggcg  ccccaacga accctcaaca gctctgggc cagcccgacc gaggccagct cctggagga cctgggtggc acgggcaaca  ttgggactct gctgtggc atggcggtg tggcggtg gggcgagcc taccgctg tggctacgt ccgtccctg  cgtgggtg cctcagta cgtctacgt gtaacctg cgtggcgga cgtgtgtac cgtctacga tcccttcal  cgtggccac taccgaaca agagtgga cttggggac gttggctg cggctgtct cggcctggac ttcctgacca  tgcagccag cacttcac gtagccgta tgaagcaga gtagctacgt cgggtgtg cggcgctg caccgtggc  cgcccaagg gctacggca gctgtggcg cttgggacct gttggctg cgtgtggc agctgtggc tgaigtggc  cattggctg gttggcggg gttcccaagg cttgtggc ccccggtgg gggcgaggg gggcgaggg gggcgaggg  tgccttgc caccagc gggggggg ggtgtgtat cggcggtc taccggcg tggcgggc caccggc  tgcagcgcg cctcttcaa gggggggg cggcgggg cggcggtg gggcggtg cttgggacgt tgcgtctt</p>	A	Homo sapiens

P Homo  
sapiens

P

caggcctgc ttctgcct tctggctg gcagctgct gccagctacc accaggccccc gctggcgccg cggacggcgc  
gcatgcaaa ctactgaac acctgctca cctacggcaa cagctgcgc aaoccttcc tctacagct gctcaccagg  
aactaccgc accactgag cggcgcgctg cggggcccg gcagcggggg agcccggggg cccgttccct cctgcagcc  
ccggcccgcc ttcaagctt gttcggggcg cccctgct tctgcagcc cagagccac tgacagcctc gtcctggccc  
cagcggcccc ggccgacct gcgcggagg gtcacaggc cccggcgga  
MALTPESPSP FPLAATGSS VPEPPGGPNA TLNSSWASPT EPSLEDLVA  
TGTTIGTLLSA MGVVGVGNA YTLVVTCSRSL RAVASMYVYV VNLALADLLY  
LLSIPFIVAT YVTKFWHFGD VGCRLVFLGLD FLTMHASIFT LTVMSERYA  
AVLRPLDTVQ RPKGYRKLAL LGTWLLALL TLPVMLAMRL VRRGPKSLCL  
PAWGPRAHRA YLTLLFATSI AGPLLIGLL YARLARAYRR SQRASFRRAR  
RPGARALRLV LGIVLLFWAC FLFWLWQLL AQYHQAPLAP RTARIVNYLT  
TCLTYGNSCA NPFLYTLTR NYRDHLRGRV RGPGGGGRG PVPSLQPRAR  
FQRCGRSL SCSPOQTDLS VLAPAAPARP APEGPRAPA

NP\_061822.1

Urotensin-II  
Receptor  
(GPR14)

161221

538

A Homo  
sapiens

A

atggctgca atggcagtc ggccaggggg cacttgacc ctgaggact gaacctgact gacagggcac tgagactcaa  
gtacctgggg cccagcaga cagagctgtt catgcccate tggccacat acctgtgat ctctgtgtg ggcgtgtgg  
gcaatgggct gacctgtg gtcactgc gccacaaggc calgcacag cctaccaact actacctt cagcctggcc  
gtgtcgacc tctgtgtgt gctggggg cttgcccctg agctatga gattggcac aactacct tctgtctggg  
cgttggggc tctatttc gcagctact tttgagat gctgctgg cctcagct caacgtact gccctgagcg  
tggaagcta tggggcg ggcaccac tccaggccag gtccatgg gtcaggggcc atgtgcgcg agtgcctggg  
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tgtcttctt ctgctgccc atggccatca tgaagtgct ctactgctc atgggctgc gactggcgcg ggaagggcgtg  
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cctgtgctc gggggctgt gcatgctt cagacccgc cagactcc acagctcag caggatgacc accaggcaga  
ccctgtga tggggctcc ctgggcagct gggccaccc cctggctggg aacgatggcc cagaggcgca gcaagagacc  
gatcaatct ga  
MACNGSAARG HFDPEDNLNT DEALRLKYLQ PQQTELFMPI CATYLLIFVV  
GAVGNGLTCL VILRHKAMRT PTNYVLFSLA VSDLLVLLVG LPELYEMWH  
NYPFLGVGG CYFRTLLFEM VCLASVLNVT ALSVERYAV VHPQARSMV  
TRAHVRVLG AVWGLAMLC LPNTSLHGIR QLHVPCRPV PDSA VCMLVR  
PRALYNMVVQ TTALLFFCLP MAMSVLYLL IGLRLRRL LLMQEAKEGRG  
SAAARSRYTC RLQQHDRGR QVTKMLFVL VVFGICWAPF HADRVMWVSV  
SQWTDGLHLA FQHVHVISGI FFYLGSAANP VLYSLMSSRF RETFQEAALCL  
GACCHRLRPR HSSHLSRMT TGSTLCDVGS LGSWVHPLAG NDGPEAQOET DPS  
atggctaacc tggacaata cactgaaca ttcaagatgg gtagcaacag taccagact gctgagatt actgaatgt  
cactaatgt aaatttcaat actccctca tggacaacc tatatctca tattcttc tggcttcg gctaaagct cagcctgtg  
ggttctgtgc cgttcatca gcaagaaaaa taaagccalc atttcatga tcaactctc tggggctgac ctgtctcatg tattatctt

NM\_006056

G Protein-  
Coupled Receptor  
GPR66

161249

539

P Homo  
sapiens

P

MACNGSAARG HFDPEDNLNT DEALRLKYLQ PQQTELFMPI CATYLLIFVV  
GAVGNGLTCL VILRHKAMRT PTNYVLFSLA VSDLLVLLVG LPELYEMWH  
NYPFLGVGG CYFRTLLFEM VCLASVLNVT ALSVERYAV VHPQARSMV  
TRAHVRVLG AVWGLAMLC LPNTSLHGIR QLHVPCRPV PDSA VCMLVR  
PRALYNMVVQ TTALLFFCLP MAMSVLYLL IGLRLRRL LLMQEAKEGRG  
SAAARSRYTC RLQQHDRGR QVTKMLFVL VVFGICWAPF HADRVMWVSV  
SQWTDGLHLA FQHVHVISGI FFYLGSAANP VLYSLMSSRF RETFQEAALCL  
GACCHRLRPR HSSHLSRMT TGSTLCDVGS LGSWVHPLAG NDGPEAQOET DPS  
atggctaacc tggacaata cactgaaca ttcaagatgg gtagcaacag taccagact gctgagatt actgaatgt  
cactaatgt aaatttcaat actccctca tggacaacc tatatctca tattcttc tggcttcg gctaaagct cagcctgtg  
ggttctgtgc cgttcatca gcaagaaaaa taaagccalc atttcatga tcaactctc tggggctgac ctgtctcatg tattatctt

NP\_006047.1

G Protein-  
Coupled Receptor  
GPR66

161249

540

A Homo  
sapiens

A

MACNGSAARG HFDPEDNLNT DEALRLKYLQ PQQTELFMPI CATYLLIFVV  
GAVGNGLTCL VILRHKAMRT PTNYVLFSLA VSDLLVLLVG LPELYEMWH  
NYPFLGVGG CYFRTLLFEM VCLASVLNVT ALSVERYAV VHPQARSMV  
TRAHVRVLG AVWGLAMLC LPNTSLHGIR QLHVPCRPV PDSA VCMLVR  
PRALYNMVVQ TTALLFFCLP MAMSVLYLL IGLRLRRL LLMQEAKEGRG  
SAAARSRYTC RLQQHDRGR QVTKMLFVL VVFGICWAPF HADRVMWVSV  
SQWTDGLHLA FQHVHVISGI FFYLGSAANP VLYSLMSSRF RETFQEAALCL  
GACCHRLRPR HSSHLSRMT TGSTLCDVGS LGSWVHPLAG NDGPEAQOET DPS  
atggctaacc tggacaata cactgaaca ttcaagatgg gtagcaacag taccagact gctgagatt actgaatgt  
cactaatgt aaatttcaat actccctca tggacaacc tatatctca tattcttc tggcttcg gctaaagct cagcctgtg  
ggttctgtgc cgttcatca gcaagaaaaa taaagccalc atttcatga tcaactctc tggggctgac ctgtctcatg tattatctt

NM\_014499

Purinergic  
Receptor P2Y10

161251

541

542	161251	Purinergic Receptor P2Y10	NP_055314.1	<p>accctccgg attactatt acatcagoca ccactggcct ttccagagag ccccttgct gctcgtctc tacctgaagt alctcaacat  gtagccagc attgtttcc tgaatgcat cagcttcaa aggtgcttt ttctctcaa gcccttcagg gccagagact ggaagcgtag  gtaccgatg ggcacatg ctagcatc gatcgtgtg gggactgct gtttgcatt tccatctct gaaagcacag  acttaacaa caacaagtc tctgtctg atcttgata caagcaaat aatgacgtg cgttggtcgg gatgallaca gtgtcagc  ttgcaggatt tglatocca gtagatcca tgcgatg tccatggg taccctggaa actactat ccttgagaca gccaccaat gcttccaag  gtagatg gaggcagaa gcatgcgga tgggtgtcat ggtgtcga gcttctca tctgtctac tccatcat attacttta  ttttlac caggtaaag gaaacatca ttacgatg tccgtgtc cgaatgcac tglatttcca cccctttgc ctgtgcttg  caagtctg ctgcttttg gatacaatc ttattact tatgtctca gagtgtcgg accaatatc ccggcatggc agttctgtga  ccgctcccg cctatgagc aaggagagtg gttcataat gatggctaa  MANLDKYTET FKMGSTST AEIYCNVTNV KFYQSLYATT YLIFIPGLL  ANSAALWVLC RFISKKNKAI IFMNLVSAD LAHVLSPLR IYYVISHWHP  FQALCLLCF YLKYLNMYS ICFLTCISLQ RCFFLLKPFAR ARDWKRRYDV  GISAAIWVW GTACLFPIL RSTDLNNKS CFADLYGKQM NAVLVGMIT  VAELAGFVP VIIAWCTWK TTISLRQPPM AFQGISERQK ALRMVFMCAA  VFFICFTPYH INFYTMVK ETIISCPV RIALYFHPFC LCLASLCLL DPILYYFMAS  EFRDQLSRHG SSVTRSLMS KESGSSMIG  MATTSATSTV NTSSLATMT TNFTSLTSTV VTTIASLVPS TNSSDYDD  LDDVDYEESA PCYKSDTTRL AAQVVPALYL LVFLGLLGN ILVVIIVRY  MKIKNLNML LLNLAISDLL FLTLFPWMH YIGMYHDWTF GISLCKLLRG  VCYMSLSQV FCILLTVDR YLA VVYAVTA LRFRVTTCGI VTCVCTWFLA  GLLSLPEFFF GHQDDNDRV QCDPYPEMS TNVWRRAHVA KVMLSLILP  LLMAVCYV IIRLLRRPS KKKYKAIRLI FVMVAYFVF WTPYNIVLL  STFHATLNL QCALSSNLDL ALLITKTAV THCCINPVY AFVGEKFRH  LYHFFHTYVA IYLCYIPFL SGDEGKEGP TRI</p>	P	Homo sapiens
543	161293	G Protein- Coupled Receptor Ls161293 [Herpes virus]	NP_042597.1	<p>gcgagaacoc gactgaccc gggccacggc ggctcccca cctgcgcgt cctgcggggc gcgctgggct ccggggcatic  gggctggcc ccatggct cggccgggg gaaactgagc gctggccggc gctggggggg gccggccgg gccggcgtga  ggaaactgac ctctcccg gcccgaccg cgtcccgct cccggcccg tctgtggagc cctgcggcg cccggcccg  ggcaccgt tctgcagcc gccctggggc gtggcgctct ggtcgtcggc ctacggggc gtggggggc tgggggtgt  cggcaacctc gttgtgact gtagctgct ggccacaag cgcacggga cggcaccaa ctctcttc gtagacctgg  ccttcggcga cggcgcatg gccggctca accgctggt caacttalc tacggcgctg accggagagtg gtagctcggc  ggcaactact gccgttcca gaaacttc ccatcaccg ccgtgtcgc cagcatctac tcatgacgg ccatcgcggt  ggacagatac atggccatta ttgacccct gaagccaggc ctgtctgcca cggccaccgg gtagctcatt ggaagcatct  ggattcggc atttactt gcatcttc agtgtctgta ttcaaaalc aaagtalc caggccgtac tcttgctac gtagagtgcc  cagaaggctc aaggcaacat ttacgtacc acatgact ctagctct gtagctct ttttctct ctagctggc atcacctaca  ccatgttg aatcagctc tggggagggg agatccagg agaacctgc gcaagatacc agggagcagct gtagggccaag  cgggaaggttg taaaatgat gtagctgt gttgtgacct ttgcatct cttgctgccc tatcatct acttacct caccggccatc  tatcagcagc tgaacagggt gaaaiacatc cagcaggtct accggggcag ctctggctg gccatgagct cggaccatgta  caaccalc atctactt gttgaaataa gtagttgt gctggctca agaggggctt ccgtgggtg cctttatcc acgtctcag  ctacgacgag ctggagctca aagccaccag gctccacca atggagaga gtagcctata cacagtgaaca agatggaggt  ccatggcgt ggtattcgac tocaacatg ggagacagtg caggtccagt caccagaga gaggggagcag cagagacgta</p>	P	Equine herpesvirus 2
544	177147	Neuromedin K Receptor-Like (NK-4R)	NM_006679	<p>gcgagaacoc gactgaccc gggccacggc ggctcccca cctgcgcgt cctgcggggc gcgctgggct ccggggcatic  gggctggcc ccatggct cggccgggg gaaactgagc gctggccggc gctggggggg gccggccgg gccggcgtga  ggaaactgac ctctcccg gcccgaccg cgtcccgct cccggcccg tctgtggagc cctgcggcg cccggcccg  ggcaccgt tctgcagcc gccctggggc gtggcgctct ggtcgtcggc ctacggggc gtggggggc tgggggtgt  cggcaacctc gttgtgact gtagctgct ggccacaag cgcacggga cggcaccaa ctctcttc gtagacctgg  ccttcggcga cggcgcatg gccggctca accgctggt caacttalc tacggcgctg accggagagtg gtagctcggc  ggcaactact gccgttcca gaaacttc ccatcaccg ccgtgtcgc cagcatctac tcatgacgg ccatcgcggt  ggacagatac atggccatta ttgacccct gaagccaggc ctgtctgcca cggccaccgg gtagctcatt ggaagcatct  ggattcggc atttactt gcatcttc agtgtctgta ttcaaaalc aaagtalc caggccgtac tcttgctac gtagagtgcc  cagaaggctc aaggcaacat ttacgtacc acatgact ctagctct gtagctct ttttctct ctagctggc atcacctaca  ccatgttg aatcagctc tggggagggg agatccagg agaacctgc gcaagatacc agggagcagct gtagggccaag  cgggaaggttg taaaatgat gtagctgt gttgtgacct ttgcatct cttgctgccc tatcatct acttacct caccggccatc  tatcagcagc tgaacagggt gaaaiacatc cagcaggtct accggggcag ctctggctg gccatgagct cggaccatgta  caaccalc atctactt gttgaaataa gtagttgt gctggctca agaggggctt ccgtgggtg cctttatcc acgtctcag  ctacgacgag ctggagctca aagccaccag gctccacca atggagaga gtagcctata cacagtgaaca agatggaggt  ccatggcgt ggtattcgac tocaacatg ggagacagtg caggtccagt caccagaga gaggggagcag cagagacgta</p>	A	Homo sapiens

ggctccaatg tctgctcccg caggaaactcc aagtcocact ccaccacagc cagcttctg agctctctcc acatgctgg  
 ggaaagagcg tcttgattc tcttggggt caaggocact gcaggacccc ctctctgt cactgctgt gctctact cctctggaagc  
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 caagttgtg aaattact gtagtact aaaaatccat ctcttata tggccagta tttagaag tttaatooca atgtttat



545	177147	Neuromedin K Receptor-Like (NK-4R)	NP_006670.1	NP_006670.1	<p>ttaataatataaataatcatatgaataaataa</p> <p>MASPAAGNLASA WPGWGWPPPA ALRNLTSPPA PTASPPSPAPS WTPSPRPQGA</p> <p>HPFLQPPWAV ALWSLAYGAV VAVAVLGNLV VIWIVLAHKR MRTVTNSFLV</p> <p>NLAFADAAMA ALNALVNFY ALHGEWYFGA NYCRRFQNFPP ITAVFASIYS</p> <p>MTAIAVDHYM AIDPLKPRLL SATATRIVIG SIWILAFLLA FPQCLYSKIK</p> <p>VMPGRTLCYV QWPEGRQHF TYHMMIVLV YCFLLIMGI TYTIVGITLW</p> <p>GGEIPGDTCD KYOEQLKAKR KVVKMMIIV VFAICWLPY HIYFILTAY</p> <p>QQLNRWKYIQ QVYLASFVLA MSSTMYPNII YCCLNKRFR GFKRAFRCWP</p> <p>FIHVSSYDEL ELKATRLHPM RQSSLYTIVR MESMSVVVFD NDDGSARSSH</p> <p>QKRGTRDVG SNVCSRRNSK STSTTASFVS SSHMSVEEGS</p>	P	Homo sapiens
546	177168	Cysteinyl Leukotriene CYSLT1 Receptor	NM_006639	NM_006639	<p>atggatgaac caggaaatct gacagiatct tcigccacat gccatgacac tatgatgac tccgcaatc aagigiatc cacctgtgac</p> <p>tctatgatct cgtgtgtagg cttctgtggc aatggctgtg tgcctatgt cctcataaaa acctatacaca agaagtcagc ctccaagta</p> <p>tacatgatia atttagcagt agcagaicta cttgtgtgt gacactgoc tctcgtg gctatgatg ttcaaaagg cattggcic</p> <p>ttgtgtgact tctgtgccc cctcagcacc tatgtctgtg atgtcaaat tggttacaca gaaaaagcc aggtgtgtgt gttaggtat tggatttt</p> <p>cgtgtgcatg caatgttt tccagtccag aacataatt tggttacaca gaaaaagcc aggtgtgtgt gttaggtat tggatttt</p> <p>gtgatttt ccaagtctc attciaatg gccaaaccac aaaaaagatga gaaaaataat accaagtgtc ttgagcccc</p> <p>acaagaacaat caaataaaaa atcatgtttt ggctgtgcat tatgtgtcat tttgtgtg cttatcatc cctttgtta ttaaatgt</p> <p>ctgttacaca atgatacttt tgaacttact aaaaaaatca atgaaaaaaa atctgtcaag tcatataaa gctataggaa tgaatcgtg</p> <p>cgtgtgacct gcttttttag tcaatttcat gccatataat attcaacta ccatcact cttattttta cacaatgaaa ctataacctg</p> <p>tgaattgtc cttagaatgc agaatgtcgtt gggtataacc ttgtcttgg ctgtcatcaa ttgtgtctt gacocctctc tatattctt</p> <p>ttctgggggt aactttagga aagggctgtc tacaatgaga aagaattctt tgtccagctg gactiatgta cccagaaaga aggcctctt</p> <p>gccagaaaaa ggaagagaaa tatglaaagt atag</p>	A	Homo sapiens
547	177168	Cysteinyl Leukotriene CYSLT1 Receptor	NP_006630.1	NP_006630.1	<p>MDETGNLTVS SATCHDTDD FRNQVYSTLY SMISVVGGFG NGFVLVYLIK</p> <p>TYHKSAFQV YMINLA VADL LCVCCTPLRV VYVHKGIWL FGDFLCRLST</p> <p>YALYVNLVCS IFMTAMSFF RCIAIVFPVQ NINLVTKKA RFVCVGIWIF</p> <p>VILTSSPFLM AKPQKDEKNN TKCFEPPQDN QTKNHVLVLH YVSLFVGFI PFVIIVCYT</p> <p>MILTLKKS MKKNLSHKK AIGMIMVVTA AFLVSFMPYH IQRTHLHFL</p> <p>HNETKPCDSV LRMQKSVVIT LSLAASNCCF DPLLFFSGG NFRKRLSTFR</p> <p>KHLSSTVTVV PRKASLPEK GEEICKV</p>	P	Homo sapiens
548	177191	Histamine H3 Receptor	NM_007232	NM_007232	<p>ccacgcgtcc gccggcgtgca cgggtgcacc ggacgcggct caggctcccg cctctctcc gctgcagcag ccgcgcgtcc</p> <p>ggccccacgt ggctcggatc cggccccggc cccctcggca ccgcctgtctc tggccccggc ccggcccccg cggaccatgc</p> <p>gctggggcgc cccaggggaa acccgaccgc gccaaaggcc cgcgaagagc aggtctcccg gccggggccc cctccggccc</p> <p>cccagctc ggccggcgcc ctgcgccgcg tcccgagcc gc-gtggact gcggggccat ggagcgcgcg ccggccgagc</p> <p>ggccgcgtgaa cgtctggggg gc-gtgggg gcgaltgcgg ggccggcggg ggggcgcgcg gcttcggcg agcctggacc</p> <p>gggggtctgg ccgcgcctat gggtctctc atcggtggcca cgggtgtggg caacgcgtcg gtcagtctg ccttcgtggc</p> <p>cgactcagc ctcgcacc agaacaact cttctgtc aactcgcca tctcgacti cctcgtcgcc gcctctgca</p> <p>tcccactga tgaacctac gtgtgacag gccgtgggac cttggcgcc ggctctgca agctgtggct ggtagtggac</p> <p>taactgtgt gcaactctc tgccttaac atcggtccta tcaagtaca cggctctcg tgggtcaccc gagcggtc</p> <p>ataccggggc cagcaggggt acacgcggcg gg-cagtgcgg aagaltgtc tgggtgggt gctggcctc ctgtgtacg</p> <p>gaccagccat cctgagcgtgg gagtacctgt ccggggggcag ctcatccccc gagggccact gctatggcca gttcttctac</p>	A	Homo sapiens

549	177191	Histamine H3 Receptor	NP_009163.1	<p>aacttgtaact tctcatcac ggccttcacc ctggagattct ttacgocctt ctctagcgtc acctcttta acctacgat clacttgaac  atccagagagc gcacccgcct ccggctggat gggtctcgag aggcagccggc ccccgagccc cctcccagagc cccagccctc  aacacccca ccgcctggct gctggggctg ctggcagaaag ggagcaggggg aggcacatggc gctgcacaggg tatgggggtgg  gtgagcgggc cgtatggcgt gagccggggg aggcagacct ctggggggggc gggtggggggc gctccggggc ttacacacac  tccagctccg gcagctccic gagggggcact gagagggccc gctacactaa gagggggctcc aggcctggcg cgtctcggc  ctcgtcggag aagcagatga agatgggtc ccagagcttc accagggct ttgggtcgtc tggggagatg aaggtggcca  agtcgctggc cgtcatcgtg agcatcttg ggctctgctg ggccccatag acgctggctga tgaatccg ggccggcgtg  catggocact gcgtccctga clactggatc gaaacctct tctggctct tggggccaac tgggtcgtga accctgctt  ctaccttg tggcaccaca gcttcggccg ggccctcac aagctgctct gcccacagaa gctcaaatc cagccccaca  gtctccctga gcactgctgg aagtgagtggg ccacacagag cctccctcag ccacggcctct ctacggccag gctcctgggg  catctggccc tctgcccc taccggctc gttccccag gggtggagccc cggcgtct gggggcctct cttaalgcca  cggcagccac cctggccatgg aggcggctc ctgggtggc cagagggggccc ctacatggct ggactggaggg ctgggtggcc  ggccctggcc ccacattct ggctccacgg ggagggggaca gctggggggg ccaagacatg ctggccaccc cctgctgggtg  cccaccttc gcagttactg gttgggttc ttccaaagc aagcacctgg gttgcttcca ggcttctgc cctagcagtt tgcctctgca  cgtgcacaca cctgcacacc cctgcacaca cctgcacacc gtcctctcc ccgggacaagc ccaggacact gctttgctg  ccttctgt ctgcalaag cctagggct ggcccttca cctcttcc caccactct ctctggccc aaagtgctga agggggccct  ggaaacctga agctgtctc tctttcca tctgggtgt ttacagaaag atgaagaaag aaacatgct gtagactga tgtcgtggg  atgtaaac aagagagaca aaattgctga ggagctcagg gctggatggc cagggtgggg ctccacggcc cctcctcc  cgtaaagct tccggctgag ctgtgccagc tgtcttgc caccggct ctggggctcac accagccctg gttggccaagc  ctggccggc cactgtgt gctacccag gactctggg ggtgtgggg aggaaggggc ccggctgggg ccaggggtcc  caaggcgtgc agggggggc cagagggaggt gccggggcag ggccggcttc gcatgtgt gtcacccgt gccagcgtct  ctgcatgctc ctctgctgt gccgcgtcg ctggcctgca aaccgtgagg tcaataaaa gttatttt taaaaaaa  aaaaaaa aaaaaaa</p>	P	Homo sapiens
550	177387	G Protein- Coupled Receptor ORF4	NM_020155	<p>MERAPPDGPL NASGALAGDA AAGGARGFS AAWTAVL AAL MALLIVATVL  GNALVMLAFV ADSSLRTQNN FFLNLAISD FLVGAFCPL YVPYVLTGRW  TFGRGLCKLW LVVDYLLCTS SAFNVLISY DRFLSVTRAV SYRAQQGDTR  RAVRKMLLV VLAFLYGA ILSWEYLSGG SSIEGHCHYA EFFYNWYFLI  TASTLEFFTP FLSVTFNLS IYLNQRRTR LRLDGAREA GPEPPPEAQP SPPTPPGCWG  CWQKGHGEAM PLHRYGVGEA AVGAEAGEAT LGGGGGGSV ASPTSSGSS  SRGTERPRSL KRSGKPSASS ASLEKRMKMV QSFTQRFRL SRDRKVAKSL  AVIVSIFGLC WAPYTLMLII RAACHGHCPV DYWYETSFWL LWANSAVNPV  LYPLCHHSFR RAFTKLLCPQ KLKIQPHSSL EHCWK</p>	A	Homo sapiens

551	177387	G Protein-Coupled Receptor ORF4	NP_064540.1		<p>gcgccaacgc cctggggccc ttgccttctt ggcttctcta ctgctgcccc gctgcctgc agtcttcac ctgaaagctt atgaacctct actttggccca ggttggtgtc aaggccaagg tgaagcgtgc gccggagatg agccagaggtt tgcctgctgt ccgagggggcc ttgtggggg cctgcgtgct ctcttgctg gtaacgtgc tgggtgctgt gctctccat cggcgcgacac agccctgggc cctgcgtctt gtcgcgtcc tgggagcgca ctccgttgc gcatctgcg cgtctctct tgcgtcctgc ctctgcctcg tggccaagcgg gcgcccctca ctgacatcta cctggaggcc aaggtagggc tgcagcacg atgcccaggt gcttttggg tctctggga gcggttca ggggttagg</p> <p>MESNLSGLVP AAGLVPALPP AVTLGLTAAY TTYLALLFFS VYAQLWL VLL YGHKRLSYQT VFLALCLLWA ALRTTLFSFY FRDTPRANRL GPLPFWLLYC CPVCLQFFTL TLMNLYFAQV VFKAKVKRRP EMSRGLLAVR GAFVGASLLF LLVNVLC AVL SHRRAPQWAL LLVRVLVSDS LFVICALSLA ACLCLVASGR PPLASTWRPR</p> <p>P</p> <p>Homo sapiens</p>
552	180956	Lysophosphatidic Acid Receptor Edg7	NM_012152		<p>ctctttaaa ttcttttca ggatgtcac ttcttctca caatgaatga ggtgtacat gacaagcaca tggactttt ttataatagg agcaacactg atactgtcga tgcctggaca ggacaacaagc ttgtgatgt ttgtgtgtt gggacgttt ttgcctgtt tatttttt tctaatttc tggatcgc ggacgtgatc aaaaacagaa aatttcatt ccccttctac taccgttgg cttaatttagc tgcctccgat ttctgcctg gaattgccia tgaattcctg atgttaaca caggccacgt ttcaaaaact ttgacttga accgctgggt tctcgtcag gggcttctgg acagtgtctt gactgttcc ctaccaact tgcgtgtat cggcggtggag aggcacatgt caatcatgag gatcggggc catagcaacc tgaacaaaaa gaggggtgaca ctgctcatt tgcgtctgc gggccatgcgc attttatgg gggcggtccc cacacgggc tggaaatggc tctgcaacat ctctgcctgc tctccctgg ccccattia cagcaggagt tacctgtt tctggacagt gtccaactc atggccttcc tcatatggt tctgtgtgac ctgcgact ctgcgttgc caagagaaa accaactct tgcctcga tacaagtggg tccatcagcc gccggagagac accatgaag ctatgaaga cgttgatgac tgtcttaggg gcgttttgg tatctggac ccggggcctg gttgttctgc tctcgcagc cctgaactgc aggcaggtg tgcgtgacga tggaaaaagg tggctcctg tgcctgcgt gctcaactcc gctgtgaacc ccatcatcta ctctacaag gacgaggaca tgaatggcac catgaagaag atgacttctt gcttctca ggagaaccca gagaggcgtc cctctgcat cccctccaca gtcctcga ggagtgcac aggcagccag tcatagagg atagttagg ccaagggtga gctgtcaata aagcacttc cttaactct gactcttc ggccaccca ggtgatgact gcttagg</p> <p>MNECHYDKHM DFFYNRSNID TVDDWTGTKL VVLCVGTFF CLFIFFSNL VIAAVKNRK FHFFYYLLA NLA AADFFAG IAYVFLMFT GPVSKTLTVN RWFLRQGLLD SSLTASLTNL LVIA VERHMS IMRM RVHSNL TKKRVTLLIL LVWAIAFMG AVPTLGWNCL CNISACSSLA PIYSRSLVF WTVSNLMAFL IMVVVYLRIY VYVKRKTNL SPHTSGSISR RRTPMKLMKT VMTVLGAFVW CWTPLVLL LDGLNCRQCG VQHVKRWFLL LALLNSVNP IYSYKDEDM YGTMKKMICC FSQENPERRP SRPSTVLSR SDTGSQYIED SISQAVCNK STS</p> <p>P</p> <p>Homo sapiens</p>
553	180956	Lysophosphatidic Acid Receptor Edg7	NP_036284.1		<p>atggggcccg gcgaggcgt gctggcgggt ctctgttga tggactggc cgtggcgtc ctatccaacg cactgtgt gctttgtgc gctacagcg ctgagctccg cactcgagcc tcaaggctcc tctgtgtga tctgtcttg ggccactgc tgcgtggcg gcctggacatg ccttcacgc tgcctgggtt gatcgcggg cggacacagt cggcgcccg cgcaltgcca gtcattggct tctggacac ctctctggcg tccaacgcgg cgttgatgctt ggcgcgcgct agcgcagacc agtggcgtggc agtgggcttc ccactgctt acgcgggacg ccttgcgacg cgtatggcg gcttgcgtt gggctgtgct tggggacagt cgttggcct ctaggcgtt gcaattggct gctgtgggt tggctacagc agcgcttgc cgttctgttc gctgcgctg ccggccgagc ctgagcgtt gcgttgcga gcttcaaccg caacgtcca tgcgttggc ttggtgtgc cgttggcgt gcttgcctt accctgctt aggttgcacg ggttggcacg agcactgc agcactgc atgaaggcgc gcttgcctt accctgctt aggttgcacg agcactgc agcactgc atgaaggcgc</p> <p>A</p> <p>Homo sapiens</p>

555	189873	G Protein-Coupled Receptor GPR78	CAC34041.1		<p>tcgcgtgct cgcgcaccig caccocagig tgcggcacgg ctgcctcalt cagcagaagc ggcgccgcca cgcgcocacc  aggaagatig gcattgctat tgcgacctic ctactctgt ttgcccglia tgcctagacc aggcctggcgg agctcgtgcc  cttcgtcacc gtagacgcc agtggggcat cctcagaag tgcctgacct acagcaaggc ggtggccgac cgttcacgt  actctctgt ccgccggccg ttccgccaag tcttgcccg catgtgcac cggctgtga agagaacccc gcgcocagca  tcacccaltg acagctctct ggaatggcc ggcatggc accagctgt gaaagagaacc ccgcgccag cgtccacca  caacggctgt gtagacacag agaatgatic ctgcctcgag cagacacact ga  MGPGEALLAG LLVMVLAVAL LSNALVLLCC AYSAELRTRA SGVLLVNL SL  GHLLAALDM PFTLLGVMRG RTPSAPGACQ VIGFLDTFLA SNAAL SVAAL  SADQWLAVGF PLRYAGRLRP RYAGLLGCA WGQSLAFSGA ALGCSWL GYS  SAFASCSRLR PPEPRPRFA AFTATLHVG FVLPLAVLCL TSLQVHRVAR  RHCQRMDTVT MKALALLADL HPSVRQRCCLI QKRRRHRAT RKIGIALATF  LICFAPYVMT RLAEVPFVT VNAQWGILSK CLTYSKAVAD PFTYSLLRP  FRQVLAGMVH RLLKRTPRPA STHDSSLDVA GMVHQLLKRT PRPASTHNGS  VDTENDSCLQ QTH</p>	P	Homo sapiens
556	189874	Neuromedin U Receptor 2	NM_020167		<p>atggaaaac ttagaatgc ttctggatc taccagcaga aactagaaga tcattccag aaacacctga acagcacga  ggagatctg gccttctct gggagacctg gcgcagccac ttctctcc cgtgctgt gggtatgig ocaatttgg tggggggg  cattggcaal glcctgtgt gctgggtat tctgcagcac caggctatga agagccccc caactactac cttcagcc  tggcggctc tgacctctg gtctgtcc ttggatgcc cctggaggtc taigatgt ggcgcaacta cctttctg  ttcggcccg tggctgtcta ctcaagacg gccctttg agaccgtg ctccgtcc atctcagca tcaacaogt  cagcgtggag cgtactgtgg ccatctaca ccgttccg gccaaatgc agagcaaccg gcgcggggcc ctaaggatc  tcggcatgt ctggggcttc tccgtctct tctccgccc caacaccagc atccatgga tcaagtcca ctactccc  aatgggtccc tgggtccagg ttggccacc tgcaggica tcaagcccat gtagatcac aattatca tccaggcac cttctcta  ttctacct tcccatgac tgcaltcgt gtctctact acctatgc actcagc actcagca aagaagaca aatctctga ggcagatga  gggaatgcaa atattcaag accctgaga aatcagica acaagatgt gtgtgtg gctatgt ttgtatctg ttggccccc  ttccattg accgactt ctacgttt gggaggagt ggaatgaat cctggctgt gtlcaacc tctccatgt ggtgtcaggt  gtctctct acctgctc agctgaac cccattatc ataacctat gtctgcgc ttccaggcag catccagaa tgtatct  ctttccaca aacagtggca ctccagcat gaccacagt tgcacctgc cgaaggaa atctctga cagaatgcca  ctttggag ctaccgaag atataggcc ccaattcca tgcagatc ccatgcaaa ctctaccc ccaacagccc  tctatga acagatga agaacaact atcaagctt ccacttaac aaaactga  MEKLQNASWI YQKLEDPFQ KHLNSTEYV AFLCGPRRSH FFLPVSVVYV  PIFVVGIGN VLVLVLQH QAMKTPINY LFSLAVSDLL VLLGMPLEV  YEMWRNYPFL FGPVGCYFKT ALFETVCFAS ILSITVSVE RYVAILHPFR  AKLQSTRRA LRILGIVWGF SVLFLPNTS IHGKHFYFP NGSLVPGSAT  CTVIKPMWY NFIIQVTSFL FYLLPMTVIS VLYLMALRL KDKSLEADE  GNANIQRPCR KSVNKMLFVL VLVFAICWAP FHIDRLFFSF VEEWSESLAA  VFNLVHVVS VFFYLSSAVN PIYNLLSRR FQAAFQNVIS SFHKQWHSQH  DPQLPPAQRN IFLTECHFVE LTEDIGPOFP CQSSMHNSHL PTALSSEQMS  RTNYQSFHFN KT</p>	A	Homo sapiens
557	189874	Neuromedin U Receptor 2	NP_064552.1			P	Homo sapiens
558	189884	G Protein-Coupled Receptor	LG94108		<p>atgtggcag ctgccttgc agacttaac tccagcagca tgaatgic cttgtctac ctcacttg ccggaggga cctgccct  gattccagg actggagaac ccatcccg gctcttgg gctctgtg tggctgtg cctggggg tctgggga accgtgtgt</p>	A	Homo sapiens

Ls189884

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tgttaaatag

Homo sapiens

P

559 189884 G Protein-Coupled Receptor 67 Ls189884 ENSMPRT1140

MLAAAFADSN SSSMNVSAH LHFAGGYLPS DSQDWRTHP ALLVAVCLVG  
FVGNLCVIGI LLHNAWKGP SMHSLNLN SLADLSLLF SAPIRATAYS  
KSVWDLGWVF CKSSDWFIHT CMAAKSLTIV VVAKVCFMYA SDPAKQVSIH  
NYTIWSVLVA IWTVASLLPL PEWFSTIRH HEGVEMCLVD VPAVAEEFMS  
MFGKLYPLLA FGLPLFFASF YFWRAYDQCK KRGTQNLNR NQIRSKQVTV  
MLLSIAISA LLWLPEWVAW LWVWHLKAAG PAPPOGFIAL SQVLMFSISS  
ANPLFLVMS EEFREGLKGV WKWMITKKPP TVSESQETPA GNSEGLPDKV  
PSPESPASIP EKEKPSPPSS GK GKTEKAEI PILPDVEQFW HERDTPVSVQ DNDPIPWEHE  
DQETGEGV

Homo sapiens

A

560 189895 G Protein-Coupled Receptor GPR61 NM\_031936

atggagtctt caccatccc ccagatcata gggaactctt ccaatttggg gagggtccct caaacccacg gttcccttac  
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aagccagctc cagaggagga gctgaggcgt cctagccggg agggctccat tgaaggagaaac ttctgtcagt tcttcagggg  
gactggctgt cctctgtagt cctgggttcc ccgaccccca ccagcccca agcaggaggcc accctgtgt gactttcgaa  
tcaggccag atag

Homo sapiens

P

561 189895 G Protein-Coupled Receptor NP\_114142.1

MESSPIQSS GNSSTLGRVP QTPGPSTASG VPEVGLRDVA SESVALFFML

562	189900	Sphingolipid Receptor Edg8	NM_030760	A	Homo sapiens	<p>LLDLTAVAGN AAVMAVIKTPALRKVFVFHLCVLVDLLAA LTLMPPLAMLS  SPALFDHALFGEVACRLYLF LSVCFVSLALSVSAINVER YYYVVPVHMRY  EVRMTLGLVA SVLVGVVWKA LAMASVPLG RVSWEEGAPS VPPHCSLQWS  HSAYCQLFVV VFAVLYFLPL LLLLLVYCS MFRVARVAAMPDGPLPTWME  TPQRSELS SRSTMVTSSG APQTPHRTF GGGKAAVLL AVGGQFLLCW  LPYFSHLVYV ALSAQPISTG QVESVVTWIG YFCFTSNPFF YGCLNRQIRG  ELSKQFVCFK KPAPEHELRL PSREGSIEEN FLQLQGTGC PSESWVSRPL PSPKQEPNAV  DFRIQAR</p>
						<p>atggagctgg ggcctgctgg ggcggggcgg g'gagcgagg tcatgtctt gcattacaac tacacgggca agctccgcgg  tgccgcctac cagccgggtg ccggcctggc cgcggagcc accggcctt ccacgtccc atgtcttc tctggggcag cctcacgtg  atctagcctt gttgtggg cteggagcc accggcctt ccacgtccc atgtcttc tctggggcag cctcacgtg  tcggatctgc tggcaggcgc cgcctacgcc gccacatcc tactgtcgg ggcgtcacg cigaactgt ccccgcgct  cigtctgca cgggagggag gctcttctt ggcactact ggcctcgtc tggcctctt ggccatcgc cgggagcgca  ggctacat ggcgcgagg gggccgcgc ccgtctccag tggggggcgc agctggcga tggcagcgc ggctggggg  gtgtcgtc tctcgggt cctggcagc cttgggctgga attgctggg tgcctggag gctgttcca cgtcttgc  gctctagc aaggctacg tgcctctg cgtgtcgc ttcgtgggca tctgtggc gctctgca cttacgcg  gcatctatg ccaggtagc gccaacgc ggcctcgc ggcacggcc ggcactgc ggcacacct gaccggggc  cgtgcgaag cgcctcgt ggctgtct cgcagctca gctgtgtc cgtggctt ggtgctt gggggccct  cttctctg cgtgtcgc acgtggcg cccggcgcc accgtctg tactctgca ggcctatcc ttcctgggac  tggccatgg caactact cgaaccca tcatctac gctaccaac cgcgacctgc gccacgcgt cctgcgctg  gtctgtcgc gacgcact ctcgggaga gaccgagtg gctccaga gtcggcagc ggcctgagg cttcggggg  cctggcgc tgcctccc cgggcttga tggagcttc agcgtcgc agcgtcgc gccacgcgc gacgggctgg  acacggc ctcacggc agcccggtg caccacag cgcgggact cgtgtatcag aacggctgc agactga  MESGLRPAP VSEVILVHYN YTGKLRGARY QPAGLRADA VVCLAVCAFI  VLENLAVLV LGRHPRFAP MFLLLGSLTL SLLAGAAYA ANILLSGPLT  LKLSPALWFA REGGVFVALT ASVLSLLAIA LERSLTMARR GPAPVSSRGR  TLAMAAAWG VSLLLGLPA LGWNCLGRDL ACSTVPLYA KAYVLCVLA  FVGILAIICA LYARIYQVR ANARLPARP GTAGTSTRA RRPRLALL  RTLSVLLAF VACWGPLFL LLDVACPAR TCPVLLQADP FLGLAMANS  LNPIIYTLN RDLRHALLRL VCCGRHSCGR DPSGQQSAS AAEASGGLRR  CLPPGLDGSF SGRSSSPQR DGLDTSSTG SPGAPTAART LVSEPAAD  gttagggcac cgtgtcgtg cctgtctt ccaggcaga ggcgggagc ccttaccoc acagcgtgc agccctgcag  ctggccctca gccctgggag gagctctt tttccaga gactcgcgc tgcatttca gcttccctat ggctccgc  ttctagag cctccggta gcgcacatgc cttggagggtt ggttagagct cctgtcgtc actgggctt gccggggccg  cgttagggcc agcaaggccc gctctgtg gaggagtg ggcctagaga agcagtagag cagggggcc agcacactg  tgggttaggt gaggccagg gaggccatgga agactgtgt gcaagggtcc agggatcgc agggggagc cagaagoc  accatggag ccatgccaaa gctgtgtg ggaagagagc agatgggta gacgggacc accatggcca gcacgcac  ggcctctgc gggcctcgt gccggccag accacggctt cggatgtg gccaatgct cacaatgca aagagtaga  ggccaggtgg caggagagac tccagaggt acatgtcgt gtcocagg agcagggccg agggctctt gccaccctg  tagcttaggc agggaggggc ggaagagggt ctagggaga ggtgcctgt gaggagcagg atgcccacc agagtcccc</p>
563	189900	Sphingolipid Receptor Edg8	NP_110387.1	P	Homo sapiens	<p>MESGLRPAP VSEVILVHYN YTGKLRGARY QPAGLRADA VVCLAVCAFI  VLENLAVLV LGRHPRFAP MFLLLGSLTL SLLAGAAYA ANILLSGPLT  LKLSPALWFA REGGVFVALT ASVLSLLAIA LERSLTMARR GPAPVSSRGR  TLAMAAAWG VSLLLGLPA LGWNCLGRDL ACSTVPLYA KAYVLCVLA  FVGILAIICA LYARIYQVR ANARLPARP GTAGTSTRA RRPRLALL  RTLSVLLAF VACWGPLFL LLDVACPAR TCPVLLQADP FLGLAMANS  LNPIIYTLN RDLRHALLRL VCCGRHSCGR DPSGQQSAS AAEASGGLRR  CLPPGLDGSF SGRSSSPQR DGLDTSSTG SPGAPTAART LVSEPAAD  gttagggcac cgtgtcgtg cctgtctt ccaggcaga ggcgggagc ccttaccoc acagcgtgc agccctgcag  ctggccctca gccctgggag gagctctt tttccaga gactcgcgc tgcatttca gcttccctat ggctccgc  ttctagag cctccggta gcgcacatgc cttggagggtt ggttagagct cctgtcgtc actgggctt gccggggccg  cgttagggcc agcaaggccc gctctgtg gaggagtg ggcctagaga agcagtagag cagggggcc agcacactg  tgggttaggt gaggccagg gaggccatgga agactgtgt gcaagggtcc agggatcgc agggggagc cagaagoc  accatggag ccatgccaaa gctgtgtg ggaagagagc agatgggta gacgggacc accatggcca gcacgcac  ggcctctgc gggcctcgt gccggccag accacggctt cggatgtg gccaatgct cacaatgca aagagtaga  ggccaggtgg caggagagac tccagaggt acatgtcgt gtcocagg agcagggccg agggctctt gccaccctg  tagcttaggc agggaggggc ggaagagggt ctagggaga ggtgcctgt gaggagcagg atgcccacc agagtcccc</p>
						<p>MESGLRPAP VSEVILVHYN YTGKLRGARY QPAGLRADA VVCLAVCAFI  VLENLAVLV LGRHPRFAP MFLLLGSLTL SLLAGAAYA ANILLSGPLT  LKLSPALWFA REGGVFVALT ASVLSLLAIA LERSLTMARR GPAPVSSRGR  TLAMAAAWG VSLLLGLPA LGWNCLGRDL ACSTVPLYA KAYVLCVLA  FVGILAIICA LYARIYQVR ANARLPARP GTAGTSTRA RRPRLALL  RTLSVLLAF VACWGPLFL LLDVACPAR TCPVLLQADP FLGLAMANS  LNPIIYTLN RDLRHALLRL VCCGRHSCGR DPSGQQSAS AAEASGGLRR  CLPPGLDGSF SGRSSSPQR DGLDTSSTG SPGAPTAART LVSEPAAD  gttagggcac cgtgtcgtg cctgtctt ccaggcaga ggcgggagc ccttaccoc acagcgtgc agccctgcag  ctggccctca gccctgggag gagctctt tttccaga gactcgcgc tgcatttca gcttccctat ggctccgc  ttctagag cctccggta gcgcacatgc cttggagggtt ggttagagct cctgtcgtc actgggctt gccggggccg  cgttagggcc agcaaggccc gctctgtg gaggagtg ggcctagaga agcagtagag cagggggcc agcacactg  tgggttaggt gaggccagg gaggccatgga agactgtgt gcaagggtcc agggatcgc agggggagc cagaagoc  accatggag ccatgccaaa gctgtgtg ggaagagagc agatgggta gacgggacc accatggcca gcacgcac  ggcctctgc gggcctcgt gccggccag accacggctt cggatgtg gccaatgct cacaatgca aagagtaga  ggccaggtgg caggagagac tccagaggt acatgtcgt gtcocagg agcagggccg agggctctt gccaccctg  tagcttaggc agggaggggc ggaagagggt ctagggaga ggtgcctgt gaggagcagg atgcccacc agagtcccc</p>
564	189901	G Protein- Coupled Receptor Ls189901 (HEOAD54)	LG94029	A	Homo sapiens	<p>gttagggcac cgtgtcgtg cctgtctt ccaggcaga ggcgggagc ccttaccoc acagcgtgc agccctgcag  ctggccctca gccctgggag gagctctt tttccaga gactcgcgc tgcatttca gcttccctat ggctccgc  ttctagag cctccggta gcgcacatgc cttggagggtt ggttagagct cctgtcgtc actgggctt gccggggccg  cgttagggcc agcaaggccc gctctgtg gaggagtg ggcctagaga agcagtagag cagggggcc agcacactg  tgggttaggt gaggccagg gaggccatgga agactgtgt gcaagggtcc agggatcgc agggggagc cagaagoc  accatggag ccatgccaaa gctgtgtg ggaagagagc agatgggta gacgggacc accatggcca gcacgcac  ggcctctgc gggcctcgt gccggccag accacggctt cggatgtg gccaatgct cacaatgca aagagtaga  ggccaggtgg caggagagac tccagaggt acatgtcgt gtcocagg agcagggccg agggctctt gccaccctg  tagcttaggc agggaggggc ggaagagggt ctagggaga ggtgcctgt gaggagcagg atgcccacc agagtcccc</p>
						<p>gttagggcac cgtgtcgtg cctgtctt ccaggcaga ggcgggagc ccttaccoc acagcgtgc agccctgcag  ctggccctca gccctgggag gagctctt tttccaga gactcgcgc tgcatttca gcttccctat ggctccgc  ttctagag cctccggta gcgcacatgc cttggagggtt ggttagagct cctgtcgtc actgggctt gccggggccg  cgttagggcc agcaaggccc gctctgtg gaggagtg ggcctagaga agcagtagag cagggggcc agcacactg  tgggttaggt gaggccagg gaggccatgga agactgtgt gcaagggtcc agggatcgc agggggagc cagaagoc  accatggag ccatgccaaa gctgtgtg ggaagagagc agatgggta gacgggacc accatggcca gcacgcac  ggcctctgc gggcctcgt gccggccag accacggctt cggatgtg gccaatgct cacaatgca aagagtaga  ggccaggtgg caggagagac tccagaggt acatgtcgt gtcocagg agcagggccg agggctctt gccaccctg  tagcttaggc agggaggggc ggaagagggt ctagggaga ggtgcctgt gaggagcagg atgcccacc agagtcccc</p>

565	189901	G Protein- Coupled Receptor Ls189901 (HEOAD54)	CAC38933.1	ggccaccogg gcagctgccc ccacgggaagc acggtctcagc acgtgtgagg gctgcaccac cttcaggttag cgggtgagtg cgatggctgt gaggaagaca acgctggccg tgcgggtgggt ggacagcatg aagaagtgga ctttgcaaggc agcagoccca aagcccaagg tctcatgag gaggtagtag tccacggga ggggacaggt gctgacaggg aggaagtcag cggccaccag gctgaccagg aacacgggtg tggaggtcca gggccgctg tggatcaga agatgaagagg ggccaaactg ttccccaaca ggcccaaggac aaactccagg gccaggatg gfgccaggaa ggacagacac agcgagggaag aggtgggggtg gcaggggccct ccaggaggcc cccacacagt ggtaaaggc MELHNLSSPS PSLSSSVLPP SFSFSPSSAP SAFTTVGGSS GPCPHTSSS LVSAFLAPIL P Homo sapiens ALEFVLGLVG NSLALFICI HTRPWTSTNV FLVSLVAADF LLISNLPLRV DYLLHETWR FGAAACKVNL FMLSTNRTAS VFELTAALN RYLKVVQPHH VLSRASVGAA ARVAGGLWVG ILLNGHLL STFGSPSCLS YRVGTPKSAS LRWHQALYLL EFFLPLALIL FAIVSIGLTI RNRGLGGQAG PQRAMRVLAM VVAVYTICFL PSIFGMASM VAFWLSACRS LDLCTQLFHG SLAFTYLNVS LDPVLYCFSS PNFLHQSRAL LGLTRGRQGP VSESSYQPS RQWRYREASR KAEIGLKV QGEVSLEKEG SSQK gggtatgggt taatcagca gaattgttg aacaactacg acatgctggg gatcatggca tggaaatgcaa cttgcaaaaa A Homo ctggctggca gcagaggctg ccciggaana giataccti tccatttiti atgggatiga gtcgtgttg ggagtccttg gaaataccat tgtgtttac ggctacatct tctctgaa gaactgggaac agcagaala ttatctct taactctct gctctgact tagctttct gtgcacctc cccatgctga taaggagtia tggcaatgga aactggatct atggagacgt gctctgcata agcaacogat atgtgttca tggcaacctc talaccagca tctcttct cactttatc agcatagatc gatactgat aataagtat cctttccgag aacacctct gcaaaagaaa gagggttgca tttaatcic ctggccact tgggttttag taacctttaga gttactacoc atactccoc ttataatcc tghataact gacaatggca ccactgttaa tgaatttga agttctggag acccaacta caactctat tacaatglt gttaacact gtgggggtc ctatctc ttttgtat gttgttcti tattacaga ttgtctcti cctaaagcag aggaataggc aggtgtctac tgcctgccc ctigaaagc ctctcaacti ggtcalcag gcagtgtaa tctctctg gcttttaca cccatcag tcatcggaat tgtgaggatc gctcagccc tggggagtg gaagcagat cagtgcatc aggtgtcat caactcti tactatgca cagggctti ggctttctg aacagtgica tcaacctgt cttctattt ctttggggag atcaactcag ggacatgctg atgaatcaac tgaagacaaa cttcaaatcc ctatcatct tttagcagatg ggctcatgaa ctctacttt catcagaga aaagtgggg gcttgtgaaa cagatgttc tacagatgaa tctgtaagcc agttacagtt tgccttaact catagacalc aatcagagag tgtcacagat ttaaccttga tctaaagaca agttgtacc agagatagtg aaaaagatgg gacgacaaga atgtactgtt tttctctct aagaatigaa aggagtgaa ctgcttag ttggcag taaactcaaa atactaggta gtaaaagct ttcaatca gttgcaaaaat ggaagatata, taagcaaca agttgtctg attgatcac tggcagatt gtaaaaaaa aaaaaaaa MAWNATCKNW LAEEAALEKY YLSIFYGIEF VVGVLGNTIV VYGYIFSLKN P Homo sapiens WNSSNYLNF LSVSDLAFLC TLPMLIRSYA NGNWTYGDVL CINSRYVLHA NLYTSILFLT FISIDRYLII KYPRREHLQ KKEFALISL AIWVLVTLEL LPILPLNPV ITDNGTTCND FASSGDPNIN LIYSMCLTLL GFLPLFVMC FFYKIALFL KQRNRQVATA LPLEKPLNLV IMAVVIFSVL FTPYHVMNV RIASRLGSWK QYQCTQVVIN SFYIVTRPLA FLNSVINPVF YFLLGDHFRD MLMNQLRHNF KSLTSFSRWA HELLSFREK tggagccatg ctccctgggc tctccggg gcgcccgcg gctgccttc gcttgaggca aaaggactct tgtggaagat A Homo ggaaactcat gtccatttc cagaatgat ttcaagccc atcaatggga ccgatactg ctgtctgtg ttgaaatgct tgaagaact ctgcatctct gcttgcatct tccatctac tgaaacatg gtcttctgg cag/tgtgac tgcgttccat accgggacat ccaacacaac
566	189904	Purinergic Receptor P2U2 (GPR91)	NM_033050	gggtatgggt taatcagca gaattgttg aacaactacg acatgctggg gatcatggca tggaaatgcaa cttgcaaaaa ctggctggca gcagaggctg ccciggaana giataccti tccatttiti atgggatiga gtcgtgttg ggagtccttg gaaataccat tgtgtttac ggctacatct tctctgaa gaactgggaac agcagaala ttatctct taactctct gctctgact tagctttct gtgcacctc cccatgctga taaggagtia tggcaatgga aactggatct atggagacgt gctctgcata agcaacogat atgtgttca tggcaacctc talaccagca tctcttct cactttatc agcatagatc gatactgat aataagtat cctttccgag aacacctct gcaaaagaaa gagggttgca tttaatcic ctggccact tgggttttag taacctttaga gttactacoc atactccoc ttataatcc tghataact gacaatggca ccactgttaa tgaatttga agttctggag acccaacta caactctat tacaatglt gttaacact gtgggggtc ctatctc ttttgtat gttgttcti tattacaga ttgtctcti cctaaagcag aggaataggc aggtgtctac tgcctgccc ctigaaagc ctctcaacti ggtcalcag gcagtgtaa tctctctg gcttttaca cccatcag tcatcggaat tgtgaggatc gctcagccc tggggagtg gaagcagat cagtgcatc aggtgtcat caactcti tactatgca cagggctti ggctttctg aacagtgica tcaacctgt cttctattt ctttggggag atcaactcag ggacatgctg atgaatcaac tgaagacaaa cttcaaatcc ctatcatct tttagcagatg ggctcatgaa ctctacttt catcagaga aaagtgggg gcttgtgaaa cagatgttc tacagatgaa tctgtaagcc agttacagtt tgccttaact catagacalc aatcagagag tgtcacagat ttaaccttga tctaaagaca agttgtacc agagatagtg aaaaagatgg gacgacaaga atgtactgtt tttctctct aagaatigaa aggagtgaa ctgcttag ttggcag taaactcaaa atactaggta gtaaaagct ttcaatca gttgcaaaaat ggaagatata, taagcaaca agttgtctg attgatcac tggcagatt gtaaaaaaa aaaaaaaa MAWNATCKNW LAEEAALEKY YLSIFYGIEF VVGVLGNTIV VYGYIFSLKN P Homo sapiens WNSSNYLNF LSVSDLAFLC TLPMLIRSYA NGNWTYGDVL CINSRYVLHA NLYTSILFLT FISIDRYLII KYPRREHLQ KKEFALISL AIWVLVTLEL LPILPLNPV ITDNGTTCND FASSGDPNIN LIYSMCLTLL GFLPLFVMC FFYKIALFL KQRNRQVATA LPLEKPLNLV IMAVVIFSVL FTPYHVMNV RIASRLGSWK QYQCTQVVIN SFYIVTRPLA FLNSVINPVF YFLLGDHFRD MLMNQLRHNF KSLTSFSRWA HELLSFREK tggagccatg ctccctgggc tctccggg gcgcccgcg gctgccttc gcttgaggca aaaggactct tgtggaagat A Homo ggaaactcat gtccatttc cagaatgat ttcaagccc atcaatggga ccgatactg ctgtctgtg ttgaaatgct tgaagaact ctgcatctct gcttgcatct tccatctac tgaaacatg gtcttctgg cag/tgtgac tgcgttccat accgggacat ccaacacaac
567	189904	Purinergic Receptor P2U2 (GPR91)	NP_149039.1	gggtatgggt taatcagca gaattgttg aacaactacg acatgctggg gatcatggca tggaaatgcaa cttgcaaaaa ctggctggca gcagaggctg ccciggaana giataccti tccatttiti atgggatiga gtcgtgttg ggagtccttg gaaataccat tgtgtttac ggctacatct tctctgaa gaactgggaac agcagaala ttatctct taactctct gctctgact tagctttct gtgcacctc cccatgctga taaggagtia tggcaatgga aactggatct atggagacgt gctctgcata agcaacogat atgtgttca tggcaacctc talaccagca tctcttct cactttatc agcatagatc gatactgat aataagtat cctttccgag aacacctct gcaaaagaaa gagggttgca tttaatcic ctggccact tgggttttag taacctttaga gttactacoc atactccoc ttataatcc tghataact gacaatggca ccactgttaa tgaatttga agttctggag acccaacta caactctat tacaatglt gttaacact gtgggggtc ctatctc ttttgtat gttgttcti tattacaga ttgtctcti cctaaagcag aggaataggc aggtgtctac tgcctgccc ctigaaagc ctctcaacti ggtcalcag gcagtgtaa tctctctg gcttttaca cccatcag tcatcggaat tgtgaggatc gctcagccc tggggagtg gaagcagat cagtgcatc aggtgtcat caactcti tactatgca cagggctti ggctttctg aacagtgica tcaacctgt cttctattt ctttggggag atcaactcag ggacatgctg atgaatcaac tgaagacaaa cttcaaatcc ctatcatct tttagcagatg ggctcatgaa ctctacttt catcagaga aaagtgggg gcttgtgaaa cagatgttc tacagatgaa tctgtaagcc agttacagtt tgccttaact catagacalc aatcagagag tgtcacagat ttaaccttga tctaaagaca agttgtacc agagatagtg aaaaagatgg gacgacaaga atgtactgtt tttctctct aagaatigaa aggagtgaa ctgcttag ttggcag taaactcaaa atactaggta gtaaaagct ttcaatca gttgcaaaaat ggaagatata, taagcaaca agttgtctg attgatcac tggcagatt gtaaaaaaa aaaaaaaa MAWNATCKNW LAEEAALEKY YLSIFYGIEF VVGVLGNTIV VYGYIFSLKN P Homo sapiens WNSSNYLNF LSVSDLAFLC TLPMLIRSYA NGNWTYGDVL CINSRYVLHA NLYTSILFLT FISIDRYLII KYPRREHLQ KKEFALISL AIWVLVTLEL LPILPLNPV ITDNGTTCND FASSGDPNIN LIYSMCLTLL GFLPLFVMC FFYKIALFL KQRNRQVATA LPLEKPLNLV IMAVVIFSVL FTPYHVMNV RIASRLGSWK QYQCTQVVIN SFYIVTRPLA FLNSVINPVF YFLLGDHFRD MLMNQLRHNF KSLTSFSRWA HELLSFREK tggagccatg ctccctgggc tctccggg gcgcccgcg gctgccttc gcttgaggca aaaggactct tgtggaagat A Homo ggaaactcat gtccatttc cagaatgat ttcaagccc atcaatggga ccgatactg ctgtctgtg ttgaaatgct tgaagaact ctgcatctct gcttgcatct tccatctac tgaaacatg gtcttctgg cag/tgtgac tgcgttccat accgggacat ccaacacaac
568	189920	G Protein- Coupled Receptor GPR63 (PSP24)	NM_030784	gggtatgggt taatcagca gaattgttg aacaactacg acatgctggg gatcatggca tggaaatgcaa cttgcaaaaa ctggctggca gcagaggctg ccciggaana giataccti tccatttiti atgggatiga gtcgtgttg ggagtccttg gaaataccat tgtgtttac ggctacatct tctctgaa gaactgggaac agcagaala ttatctct taactctct gctctgact tagctttct gtgcacctc cccatgctga taaggagtia tggcaatgga aactggatct atggagacgt gctctgcata agcaacogat atgtgttca tggcaacctc talaccagca tctcttct cactttatc agcatagatc gatactgat aataagtat cctttccgag aacacctct gcaaaagaaa gagggttgca tttaatcic ctggccact tgggttttag taacctttaga gttactacoc atactccoc ttataatcc tghataact gacaatggca ccactgttaa tgaatttga agttctggag acccaacta caactctat tacaatglt gttaacact gtgggggtc ctatctc ttttgtat gttgttcti tattacaga ttgtctcti cctaaagcag aggaataggc aggtgtctac tgcctgccc ctigaaagc ctctcaacti ggtcalcag gcagtgtaa tctctctg gcttttaca cccatcag tcatcggaat tgtgaggatc gctcagccc tggggagtg gaagcagat cagtgcatc aggtgtcat caactcti tactatgca cagggctti ggctttctg aacagtgica tcaacctgt cttctattt ctttggggag atcaactcag ggacatgctg atgaatcaac tgaagacaaa cttcaaatcc ctatcatct tttagcagatg ggctcatgaa ctctacttt catcagaga aaagtgggg gcttgtgaaa cagatgttc tacagatgaa tctgtaagcc agttacagtt tgccttaact catagacalc aatcagagag tgtcacagat ttaaccttga tctaaagaca agttgtacc agagatagtg aaaaagatgg gacgacaaga atgtactgtt tttctctct aagaatigaa aggagtgaa ctgcttag ttggcag taaactcaaa atactaggta gtaaaagct ttcaatca gttgcaaaaat ggaagatata, taagcaaca agttgtctg attgatcac tggcagatt gtaaaaaaa aaaaaaaa MAWNATCKNW LAEEAALEKY YLSIFYGIEF VVGVLGNTIV VYGYIFSLKN P Homo sapiens WNSSNYLNF LSVSDLAFLC TLPMLIRSYA NGNWTYGDVL CINSRYVLHA NLYTSILFLT FISIDRYLII KYPRREHLQ KKEFALISL AIWVLVTLEL LPILPLNPV ITDNGTTCND FASSGDPNIN LIYSMCLTLL GFLPLFVMC FFYKIALFL KQRNRQVATA LPLEKPLNLV IMAVVIFSVL FTPYHVMNV RIASRLGSWK QYQCTQVVIN SFYIVTRPLA FLNSVINPVF YFLLGDHFRD MLMNQLRHNF KSLTSFSRWA HELLSFREK tggagccatg ctccctgggc tctccggg gcgcccgcg gctgccttc gcttgaggca aaaggactct tgtggaagat A Homo ggaaactcat gtccatttc cagaatgat ttcaagccc atcaatggga ccgatactg ctgtctgtg ttgaaatgct tgaagaact ctgcatctct gcttgcatct tccatctac tgaaacatg gtcttctgg cag/tgtgac tgcgttccat accgggacat ccaacacaac

beta)			atttgcgtg taigaanaa cctacalgaa tatiacac ccaccacat tccagcatcc tgcagctcgt ccatgtcta gatatagtt tgaacacatg gctccacatg gttgagtc ctgaccgig aatagtiacag ctgigccac aacacagca gcatliaaga gcctaaacti ggccttcag atcaccctti ctgtataat gataicatt ctgttgtgt ctittctgg gaacttggt gttgacctg tggttacca aaaaagctgc atgaggctg caatlaacat cctctctgoc agcctagcti tgcagacat gttgctga gctgaaca tgcctttgc ccttgtaact atcttacta cccgatggat ttgggaaa tctctgla gggatctgc taigtctt tggttttg tgalagaag agtagccalc ctgtcatca ttacalaga tagttctct atfagctt ccttagccg taggaaccc cgaccgicag ccatatagag ctagggtct gattgcagt tctgggcaa ctctcttt tcttagctt ccttagccg taggaaccc cgaccgicag atacctccc gagtcccca gttgtggtt gggtagacaa ccaatccagg ctaccaggt tatgtgatt tgaattctt catctctt ttataccct tcttgtaat acgtacta ttatggga tactcaac cctggcac aatgcttga ggaatccatag ctaccgtgaa ggtatgoc tccagcaggc cagcaaacatg ggtctatga gtcgcagag accttccag atgagcatg acatggct taaacacgt gcttcacca ctattgat tctttgt gcttcag tctctggc cccatccac acttiacagc ttgtggcaa attcagtaag cactttact atcagacaa ctittttg altagacat ggtctatg gctctgctac ctcaagctg catigaatcc gctatcac tactggagga ttagaat ccatgact tgcctggaca tgaatccaa gctctcaag ttutggccg agctccctgg tcacacaaag cgacggatc gctctatg tctatg tgggggac atcgagcgt ggttgaata ttggaaactgg ctgacattt ggttgatgt tcttttat tgcattgaa tctcttct catagctt ccatctt ttutttata ggtttgtgt tccaggttc aatagaatc ctcaattag agtgaatha tagttctgt accaagaa aataatagga aagtgatcac aatatatcc ggaatcagga ttgtcttta ttgagctgc agttacatg aatttaggt gtttgggt ttitcttga ttgattgt ttacatg tccaggttt ttitggaa gacatgctg ctittacc catatggag cc	P	Homo sapiens
569	189920	NP_110411.1	MVFSAVLTAF HTGTSNTTFV VVENTYMNIT LPPFQHPDL SPLRYSFET MAPTGLSSLT VNSTAVPTTP AAFKSLNPL QITLSAMIF ILVFSFLGNL VVCLMVYQKA AMRSAINLL ASLAFADMLL AVLNMPFAL V TILTRWIFG KFFCRVSAMF FWLFVIEGVA ILLISIDRF LIIVQRQDKL NPYRAKVLIA VSWATSFCA FPLAVGNPDL QIPSRAPQCV FGYYTTPGYQ AYVILISLIS FFIPFLVILY SFGILNLT HNALRIHSYP EGICLSQASK LGLMSLQRPF QMSIDMGFKT RAFTTILIF AVFIVCWAPF TTYSLVATFS KHYYQHNFF EISTWLLWLC YLKSALNPLI YYWRKKFHD ACLDMMPKSF KFLPQLPGHT KRRIRPSAVY VCGEHRVTV ttgttgatg calctctga agctttaa acaatigat aattggctt caagatagc ctacacatg caatataca actcggaa act tggctctcag cgtatcacc ctgtaccag ggcacaaatg aattcaaat tttagctg gcttccaa caataatgaa tctatttc agatgagtt ttgagatgga caatggatc cactggcatc tgaatttg cctccaaact tacttgagaa tttaagtcca gaaatctg ttaggtag aagagcacag ttacttct tcaaaaaa tggacttct caggtatg gaccccaag aaaaacttia gtgagtatg tgaatggcg cagtattgga aacallacta tccagaatct gaaagatct gttcaataa aatcaaaaa tacaagaact caggaatg atcatccat ctgtgcttc tggatctga acaaaaaa aagtttggga ggaatggaaca cgtcaggatg ttgtcacac agagatcag atgcaatg gacatgctg ctgtgaacc acitacaca ctgttgagtt ctgtggacc ttccaagaag tgcctcacag ttatgtgcaa gaaacactaa agtctctat tcatcagct atatgggtg tggaaatct gctattttt cagcagcaac tctctgaca tatgtgtt ttgagaat gcaagggat tctctcca aatcttgat gaaactgagc acagccctg tttctctgaa tctctctc ctctagag gctggatcac ccttccat gttgagatg ttgcatg tttgagc ctgttgatt tctctctt ggcaacctt acctggatgg ggttagagc aatcacatg tcatgctc tagttaagt attiaaact tacttgcg gataactt aatattct atcatggct ggggttggc tgccttgg gttcagttg ttctagcag cagaacaa aatgaagct atggaaga aagtatggg aaagaanaag gttatgaat ctgttggtt caagatccag tcatattia tgtgacctg	A	Homo sapiens
570	189945	AK027843	G Protein-Coupled Receptor GPR63 (PSP24 beta)	G Protein-Coupled Receptor Dj287g14.2	



571	189945	G Protein- Coupled Receptor Dj287g14.2	BAB55406	<p>gcicgggtat ttggagatcat gttttttctg aacattgcca tgcattatgt agtaalgggt cagatctgtg agaggaatgg caagagaagc  aaccggacc ttgagagaaga aggttaagg aacctgcgca ggtggttag ctgacctt ctgtgggca tgcattgggg  ttttctatc ttgcctggg gaccttaaa tatccctt algtacctt tctcatct caattcatia caaggcttat ttatattcat  cttcacigt gctatgagg agaattgtca gaaacagtgg cggcggcgtc tctgctgtgg tagatttcgg ttacgagata  actcagattg gagtaagaca gctaccaala tcatcaagaa aggttcgat aatcaggaa aatctttgt tcaagctcc attggtcca  actcaacct tcttatcc aatctaat ccagctctac cacccttacc caactttc aaagggaata gccacacaga taatgtctcc tatgagcatt  ccctcaaca aggtggatca ctacagactg gcttccatgg acaagctct gcaaaactg gccatgtctg atggagatca  aacatcaic atocctgtcc atcaggctat tgaaggctc aagggttat gcaatgtc tcaagacac tictataaaa atattatcat  gtcagacacc ttacgccaca gcacaaagt ttatgtct ttagaanaag aatacaatct gcagaaatgt gaagatttgc  aagcagtgta aactgcaact agtgatgtaa atgtgtctat acctaggtaa ctcatatat atagggaag tatttgta agaaaggctt  tggaaatc agaatttt tttaatat attttcca tggagagt gtcacata aacttcagt actgagagta acatgacica  gtagccacag aagctatgat ttgtaata tataatgaa tcaagagat calaatgcag ggagagacatt caaattagag  acaaggaga agcaatgtc aggaagacc tatgatagc tcatttact ccacctaat gttatatct gatatacca ttittctcat  ctttctc aacataaac tgccttct ttggagact taagacatt ctaaaagc aataaaagc ctgtattc occattgaga  gtttgtcc aaggaaatg aagtgagaca ttgggtgag tcaataat caaataat ttgaaagc tgggtctgca atagctagtc  taaaactac ttgtgtca gctcttct tatgtatat aagagcttga ggaagcttgg caagatagat ggtgtatat ttatggatca  ggctgtgca tacaacct gcatatatt atgcagctta cctaactc agatctct gagtaalgct tgcgtctaa tgaatgata  ggagaccaca ttgtaattg tcttagatg tggagctcat gcagttct agaaatgct ctacgtgtc gctgtgtt ttacattg  ctctgggtta tctgggaagt atcaggttct ggaagggcaac agcattagt gataagaaa ggaagacatt tggcaagcc  aatctctia aaggcaagt ccagaacctg gaactagag gctttct ctgcagaaa aacaggtagt ttgcagctg  agatatggga ggtgttttag gctacacag aaccaagg accctcacc ttgtctgag ctcaatcag gaagctatt  gcttggctcc agcagatgat gagataatg agtatgggt ttattatc tgcattat tgaacatcc tgaacacca tcttgggaga  caagagcatt accagctg gcttcacg ggaagggtg taccagt</p> <p>MDFESGQVDP LASVLPPNL LENLSPEDSV LVRRQAQTFK NKTGLFQDVG  PQRKTLVSYV MACSIGNITI QNLKDPVQIK IKHTRTQEVH HPICAFWDLN  KNKSFGGWNT SGCVAHRDSD ASETVCLCNH FTHFGVLM DL PRSASQLDAR  NTKVLTFISY ICGGSAIFS AATLLTYVAF EKLRRDYP SK ILMNLSTALL FLNLLFLLDG  WITSFNVDGL CIAVAVLLHF FLATFTWMG LEAHMYIAL VKVFNTYIR  YILKFCIGW GLPALVSVV LASRNNNEVY GKESYGKEG DEFCWQDPV  IFYVTCAGYF GVMFFLNIA M FIVVMVQICG RNGKRSNRTL REEVLNRLS  VVSLJFLG M TWGF AFWG PLNPFMYLF SIFNSLQGLF IFIFHCAMKE  NVQKQWRRHL CCGRFR LADN SDWSKTATNI IKSSDNLGK SLSSSSIGSN  STYLTSSKSKS SSTTYFKRNS HTDNVSYEHS FNKSGSLRQC FHGQVLVKTG PC  caccattag caaagatagt ttctatag agaatcag ctgtaata caggttacc aggcagatg gagacaatc  agattttga tactttat atgcagtc alacactgc attctgtgc caggttcat aggaatata ttacccctgt ggtattctia  tggttatag aagaagaaca aacgagctgt gatattatg ataaactag ccattctga ctactacaa gttcttct tggcactgag  gatctctac tacttgatc atgactggcc atttggcct ggtctgca tgtctgtt ctactgaag tatgtcaaca tgtatgcaag  catctactc ttgtctgca tcaagtgtgc aggtattg ttctcagt accctttg ctccatgac tgaacacaga aataatgact  gtatcagc attgtggct ggtctgcat ctgcttggc tgtgtact ttccactct cagaacaggt gatgactct ctggcaatag  gacaaatgc ttgtggatc ttctaccag gaatgcaac ctggcccatc ccgttgtat gatgacatt ggcagttga ttgggttgt</p>	P	Homo sapiens
572	190026	G Protein- Coupled Receptor JEG18	NM_032553	<p>gacaaatgc ttgtggatc ttctaccag gaatgcaac ctggcccatc ccgttgtat gatgacatt ggcagttga ttgggttgt</p>	A	Homo sapiens

Homo  
sapiens

P

MPANYTCTRP DGDNDIDRYF IYAVTYTVL VPGLIGNILA LWFVGYMKE  
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NMYASIFYLV CISVRFWFL MYPRFHDCK QKYDLYISIA GWLIICLACV  
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PLDFLVKSNE IKSLARRVI LIFHSVALCL ASLNSCLDPV IYFSTNEFR RRLSRQDLHD  
SIQLHAKSFV SNHTASTMTP ELC

573 190026 G Protein-  
Coupled Receptor  
JEG18 NP\_115942.1

Homo  
sapiens

A

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574 190031 G Protein-  
Coupled Receptor  
VLGR1 AF055084

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575	190031	G Protein- Coupled Receptor VLGR1	AAD55586.1	<p>ggaggactac acatggccta cagacactc tggatgtgg ttctctgtt cattttcaac agtctgcagg gactttatgt ttcatggt  tatitcattt tacacaacca aatgtgttc cctaigaagg ccagttacac tggagaatg aatggccatc ctggaccacg cacagcctt  ttcacgccc ggagtggaaat gccctctgct ggaggagaa tgcagcagc caccagaat ctcacgtgtg ctatggagg  gggtccact gactgggaga gagatcctt ccaacaggc agtcaggca gccctgattt aaagccaagt ccacaaaatg  gagccagt cccgtctct ggaggatag gccagggtc acttagacc gatggaggat ccagaggagt tgaigtatta  atattgat taaaaactgg tgcgtctc agtgcagtg ataaagatc tggcaaggc agccaggagg ggggcacct  gactgacc cagatcgtgg agtcaggag gataccatc gccgacatc accgttagca cctcactaac cattgactg  agcacctt catattgta tgcgttgg tgcataact ctctaaagc atccacctgt gtaataggaa cctgtgaatt gtaactggatg  attaatacaa acgtgtgtt tgaattgga gtaataata ctgattglat gtagccagaa aattcactgc tataagaaag gtaggagcag  tttgiatcag ttaataggat gttcatatc caagatatt agtgtttt ttaatcatcc tataaggcta acatigtta atgaagataa  taatacaataa agcaataggaa tct</p> <p> MQLCIFCCCC ILFYFDLYDF GRGYDFTIQE NGLQIDQPPE IGNISIVRII IMKNDNAEGI P  IEFDPK YTA F EVEEDVGLIM IPVRLHGT YGYTADFISQ SSSASPGGVD  YILHGSTVTF QHGQNLSPIN ISIDDNESE FEEPIELLT GATGGA VLG R HL VSRILIAK  SDSPFGVIRF LNOISKISIAN PNSTMILSLV LERTGGLLGE IQVNWETVGP  NSQEALLPON RDIADPVSGL FYFGE GEGGV RTIILTIYPH EEIEVEETFI IKHLVKGEA  KLDSRAKDVLT IQEFGDPN GVVQFAPETL SKKTYSEPLA LEGPLLTTF  VRRVKGTGFE IMVYWELSSSE FDIATEDFLST SGFFTIADGE SEASFDVHLL PDEVPEIEED  YVIQLVSVEG GAELDLEKSI TWFSVYANDD PHGVFALYSD RQSLIGQNL IRSIQNITR  LAGTFGDVAV GLRISSDHKE QPIVENAER QL VKDGGATY KVDVVPKNNQ  VFLSGSNT LQLVTVMV VG GRFYGMPTIL QEAKSAVLV SEKAANSQVG  FESTAFQLMN ITAGTSHVMI SRRGTYGALS VAWTTGYAPG LEIPEFIVVG  NMTPTLGSLS FSHGEQRKGV FLWTFPSGW PEAFVLHLSG VQSSAPGGAQ  LRSGFIVAEI EPMGVFQFST SSRNIIVSED TQMIRLHVQR LFGHSDLIK VSYQTTAGSA  KPLEDFEPVQ NGELFFQKFQ TEVDFFEITII NDQLSEIEEF FYTNLTSEI RGLQKFDVNW  SPRLNLDFS AVITILDND LAGMDISFPE TTVA VAVDTT LIPVETEST YLSTSKTTTI  LQPTNVVAIV TEATGVSAIP EKL VTLHGTP AVSEKPDVAT VTANVSHGT  FSLGPSIVYI EEMKNGTFN TAEVLIRRTG GFTGNVSITV KTFGERCAQM  EPNALPFRGI YGISNLTWAV EEEDFEEQTL TLFLDGERE RKVSVQILD  DEPEGQEFFY VFLTNPOGGA QIVEGKDDTG FAAFAMVIT GSDLHNGIIG  FSEESQGLE LREGAVMRL HLIVTRQPNR AFEDVK VFWR VTLNKTVVVL  OKDGVNLMEE LOSVSGTTC TMGQTKCFIS IELKEKVPQ VEVYFFVELY  EATAGAAINN SARFAQIKIL ESEDSQL VY FSVGSRLAVA HKKATLISLQ  VARDSGTGLM MSVNFSTQEL RSAETGRTI ISPAISGKDF VITEGTLVFE  PGQRSTVLDV ILTPETGSLN SFPKRFQIVL FDPKGGARID KVGGTANITL  VSDADSQAIW GLADQLHQPV NDDILNRVLH TISMKVATEN TDEQLSAMMH  LIEKITTEGK IQAFSVASRT LFYEILCSLI NPKRKDTRGF SHFAEVTENF AFSLLTNVTC  GSPGEKSKTI LDSCPYSIL ALHWYPOQIN GHKFEKEDG YIRPERLLD  VQDAEIMAGK STCKLVQFTE YSSQWFWISG NNLPTLKNKV LSLSVKGOSS  QLLTNDNEVL YRIYAAEPRI IPQTSICLLW NQAAAASWLSQ SQFCKVIEET</p>	Homo sapiens
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576	190168	G Protein- Coupled Receptor GPR58	NM_014626	ADYVEACACSH MSVYAVYART DNLSSYNEAF FTSGFICISG LCLAVLSHIF CARYSMFAAK LLTHMMAASL GTQLFLASA YASPQAEES CSAMAAVTHY LYLCQFSWML IQSVNFWYVL VMNDEHTERR YLLFFLLSWG LPAFVVLLI VLKGIYHQ5 MSQIYGLIHG DLCPFNVA ALFTAALVPL TCLVVVFVVF IHAYQVKPQW KAYDDVFRGR TNAAEIPLIL YLFALISVTW LWGGLHMAYR HFWMVLVLFVI FNSLQGLYVF MUYFILHNQM CPMKASYTV EMNGHPGPST AFFTPGSGMP PAGGEISKST QNLIGAMEEV PPDWERASFQ QGSQASPDLK PSPQNGATFP SSGYGQGS LIADEESQEFD DLIFALKTGA GLSVSDNESG QGSQEGGTLT DSQIVELRRI PIADTHL atgattcat ttatggcagg atccattat atcaaatat tiggcaatct tggcaatct tggcaatct cttacticaa gcagctcac acaccaacca acttctcal cctctccag gccatcacig atttctctt gggattcacc atcatgccat atagiatgat cagatcggg gagaacigt ggtatttgg gcttacatt tgaagattt attatagtt tgaactgat cttagcataa catccatttt tcatcttgc tcagtggcca ttatagatt ttatgctata tttacccat tacttatic caccaataa actattccag tcatataaag attgctact ctatgttgt cagtcctctgg agcatttgc ttctctaga ggcctatgca gatggaatag agggctatga catcttgtt gcttgttoca gtcttgcct agtattgic aacaagctat gggggaccac ctgtttatg gcaagtttct tcatcttgg gtctatgat gggggattt aogggcaaat tttagcaga tccagaaac atgctatgc calcaataac ttgcagaaaa atcaaalaa tcaagtgag aagagcaaaa aagctgcca aactttagga alagtgatag gatttttct attatgttg ttcttgtt tctcacaat ttatggat ccttttga acttctac tctttagt ttgttagt ccttgacatg gtttgctat tttaactca catgtaatcc gttaatat ggtttctct atcccgtt tgcagagca ctgagtaga ttgttagg taaatttgc agctcatgt tccataatc tatttgt atgcaaaa aagtgatga g MYSFMAGSIF ITIFGNLAMI ISISYFKQLH TPTNFLILSM AITDFLLGFT IMPYSMRSV P ENCWYFGLTF CKIYVSFDM LSITSIFHL SVAIDRFYAI CYPLL YSTKI TIPVKRLLL LCWSVPGAFA FGAVFSEAYA DGIEGYDIL V ACSSSCPVMF NKLWGTTLM AGFTPGSMM VGIYKIFAV SRKHAHAINN LRENQNNQVK KDKKAAKTLG IVIGVFLLCW FPCFFTLJD PFLNFTPVV LFDALTWFGY FNSTCNPLIY GFFYPWFRR LKYILLGKIF SSCFHNTILC MQKESE atgattcaaa ctatattcc cgaagaccta tccagtgic caaaattgt aataaagatc ctgtctccc accaaccgt ctttcatgt ccagtgata atgtattgg ttatgactgg agcattgat atccattat cggaaacttg gtataatgg ttccataic gcatttcaaa cagttcact cttccaaaa ctttctgac ctctccatg caaccacgga ctttctgic ggtttgca ttatgccata cagcataatg cgatcagtg agattgtctg ttacttggg gatggcttt gtataatcca caaagcttt gacatgagc tcatgactgac ctccatttc cacctctgt ccattgctat tgaccgatt ttgocgtgt gtatccctt acattacaa accaaaaa cgaactccac cataaagcaa ctgtggcat ttgtctgic agttctctt ctttttct ttgtttatg tctatctag gcogattgt cgggtatgca gagctataag atattgttg cttgtctcaa ttcttgcc ctacttca acaattctg ggggacataa ttgtcacta calgtttct taccctggc tccatcattg ttgtattta tggcaaatc ttatctgt ccaaacaga tgcctgagtc atcagccatg tgcctgaaaa cacaaagggg gcagtgaata aacacatlc caagaaaaa gacaggaaa gacggaagac actgggataa gtaattgggg ttgtctggc ttgtgttg cttgttct ttgttctg ttatgacca taccatag actccact cactataa ttggaatcti tagtggtgt ccgttactt aacttact gcaacctct tattcaggc ttuttaalc calgtttca gaaagcattc aagttacatg tgcaggaaa aattatgac tccattcag aaactgcaa ttgttctt gaagcatt aa MDLTYPEDL SSCPKFVNKI LSSHQPLFSC PGDNVFGYDW SHDYPLFGNL P VIMVSISHFK QLHSPNTNFI LSMATTDLL GFVIMPYSIM RSVESCWYFG	Homo sapiens
577	190168	G Protein- Coupled Receptor GPR58	NP_055441.1	ADYVEACACSH MSVYAVYART DNLSSYNEAF FTSGFICISG LCLAVLSHIF CARYSMFAAK LLTHMMAASL GTQLFLASA YASPQAEES CSAMAAVTHY LYLCQFSWML IQSVNFWYVL VMNDEHTERR YLLFFLLSWG LPAFVVLLI VLKGIYHQ5 MSQIYGLIHG DLCPFNVA ALFTAALVPL TCLVVVFVVF IHAYQVKPQW KAYDDVFRGR TNAAEIPLIL YLFALISVTW LWGGLHMAYR HFWMVLVLFVI FNSLQGLYVF MUYFILHNQM CPMKASYTV EMNGHPGPST AFFTPGSGMP PAGGEISKST QNLIGAMEEV PPDWERASFQ QGSQASPDLK PSPQNGATFP SSGYGQGS LIADEESQEFD DLIFALKTGA GLSVSDNESG QGSQEGGTLT DSQIVELRRI PIADTHL atgattcat ttatggcagg atccattat atcaaatat tiggcaatct tggcaatct tggcaatct cttacticaa gcagctcac acaccaacca acttctcal cctctccag gccatcacig atttctctt gggattcacc atcatgccat atagiatgat cagatcggg gagaacigt ggtatttgg gcttacatt tgaagattt attatagtt tgaactgat cttagcataa catccatttt tcatcttgc tcagtggcca ttatagatt ttatgctata tttacccat tacttatic caccaataa actattccag tcatataaag attgctact ctatgttgt cagtcctctgg agcatttgc ttctctaga ggcctatgca gatggaatag agggctatga catcttgtt gcttgttoca gtcttgcct agtattgic aacaagctat gggggaccac ctgtttatg gcaagtttct tcatcttgg gtctatgat gggggattt aogggcaaat tttagcaga tccagaaac atgctatgc calcaataac ttgcagaaaa atcaaalaa tcaagtgag aagagcaaaa aagctgcca aactttagga alagtgatag gatttttct attatgttg ttcttgtt tctcacaat ttatggat ccttttga acttctac tctttagt ttgttagt ccttgacatg gtttgctat tttaactca catgtaatcc gttaatat ggtttctct atcccgtt tgcagagca ctgagtaga ttgttagg taaatttgc agctcatgt tccataatc tatttgt atgcaaaa aagtgatga g MYSFMAGSIF ITIFGNLAMI ISISYFKQLH TPTNFLILSM AITDFLLGFT IMPYSMRSV P ENCWYFGLTF CKIYVSFDM LSITSIFHL SVAIDRFYAI CYPLL YSTKI TIPVKRLLL LCWSVPGAFA FGAVFSEAYA DGIEGYDIL V ACSSSCPVMF NKLWGTTLM AGFTPGSMM VGIYKIFAV SRKHAHAINN LRENQNNQVK KDKKAAKTLG IVIGVFLLCW FPCFFTLJD PFLNFTPVV LFDALTWFGY FNSTCNPLIY GFFYPWFRR LKYILLGKIF SSCFHNTILC MQKESE atgattcaaa ctatattcc cgaagaccta tccagtgic caaaattgt aataaagatc ctgtctccc accaaccgt ctttcatgt ccagtgata atgtattgg ttatgactgg agcattgat atccattat cggaaacttg gtataatgg ttccataic gcatttcaaa cagttcact cttccaaaa ctttctgac ctctccatg caaccacgga ctttctgic ggtttgca ttatgccata cagcataatg cgatcagtg agattgtctg ttacttggg gatggcttt gtataatcca caaagcttt gacatgagc tcatgactgac ctccatttc cacctctgt ccattgctat tgaccgatt ttgocgtgt gtatccctt acattacaa accaaaaa cgaactccac cataaagcaa ctgtggcat ttgtctgic agttctctt ctttttct ttgtttatg tctatctag gcogattgt cgggtatgca gagctataag atattgttg cttgtctcaa ttcttgcc ctacttca acaattctg ggggacataa ttgtcacta calgtttct taccctggc tccatcattg ttgtattta tggcaaatc ttatctgt ccaaacaga tgcctgagtc atcagccatg tgcctgaaaa cacaaagggg gcagtgaata aacacatlc caagaaaaa gacaggaaa gacggaagac actgggataa gtaattgggg ttgtctggc ttgtgttg cttgttct ttgttctg ttatgacca taccatag actccact cactataa ttggaatcti tagtggtgt ccgttactt aacttact gcaacctct tattcaggc ttuttaalc calgtttca gaaagcattc aagttacatg tgcaggaaa aattatgac tccattcag aaactgcaa ttgttctt gaagcatt aa MDLTYPEDL SSCPKFVNKI LSSHQPLFSC PGDNVFGYDW SHDYPLFGNL P VIMVSISHFK QLHSPNTNFI LSMATTDLL GFVIMPYSIM RSVESCWYFG	Homo sapiens
578	190170	G Protein- Coupled Receptor GPR57	NM_014627	ADYVEACACSH MSVYAVYART DNLSSYNEAF FTSGFICISG LCLAVLSHIF CARYSMFAAK LLTHMMAASL GTQLFLASA YASPQAEES CSAMAAVTHY LYLCQFSWML IQSVNFWYVL VMNDEHTERR YLLFFLLSWG LPAFVVLLI VLKGIYHQ5 MSQIYGLIHG DLCPFNVA ALFTAALVPL TCLVVVFVVF IHAYQVKPQW KAYDDVFRGR TNAAEIPLIL YLFALISVTW LWGGLHMAYR HFWMVLVLFVI FNSLQGLYVF MUYFILHNQM CPMKASYTV EMNGHPGPST AFFTPGSGMP PAGGEISKST QNLIGAMEEV PPDWERASFQ QGSQASPDLK PSPQNGATFP SSGYGQGS LIADEESQEFD DLIFALKTGA GLSVSDNESG QGSQEGGTLT DSQIVELRRI PIADTHL atgattcat ttatggcagg atccattat atcaaatat tiggcaatct tggcaatct tggcaatct cttacticaa gcagctcac acaccaacca acttctcal cctctccag gccatcacig atttctctt gggattcacc atcatgccat atagiatgat cagatcggg gagaacigt ggtatttgg gcttacatt tgaagattt attatagtt tgaactgat cttagcataa catccatttt tcatcttgc tcagtggcca ttatagatt ttatgctata tttacccat tacttatic caccaataa actattccag tcatataaag attgctact ctatgttgt cagtcctctgg agcatttgc ttctctaga ggcctatgca gatggaatag agggctatga catcttgtt gcttgttoca gtcttgcct agtattgic aacaagctat gggggaccac ctgtttatg gcaagtttct tcatcttgg gtctatgat gggggattt aogggcaaat tttagcaga tccagaaac atgctatgc calcaataac ttgcagaaaa atcaaalaa tcaagtgag aagagcaaaa aagctgcca aactttagga alagtgatag gatttttct attatgttg ttcttgtt tctcacaat ttatggat ccttttga acttctac tctttagt ttgttagt ccttgacatg gtttgctat tttaactca catgtaatcc gttaatat ggtttctct atcccgtt tgcagagca ctgagtaga ttgttagg taaatttgc agctcatgt tccataatc tatttgt atgcaaaa aagtgatga g MYSFMAGSIF ITIFGNLAMI ISISYFKQLH TPTNFLILSM AITDFLLGFT IMPYSMRSV P ENCWYFGLTF CKIYVSFDM LSITSIFHL SVAIDRFYAI CYPLL YSTKI TIPVKRLLL LCWSVPGAFA FGAVFSEAYA DGIEGYDIL V ACSSSCPVMF NKLWGTTLM AGFTPGSMM VGIYKIFAV SRKHAHAINN LRENQNNQVK KDKKAAKTLG IVIGVFLLCW FPCFFTLJD PFLNFTPVV LFDALTWFGY FNSTCNPLIY GFFYPWFRR LKYILLGKIF SSCFHNTILC MQKESE atgattcaaa ctatattcc cgaagaccta tccagtgic caaaattgt aataaagatc ctgtctccc accaaccgt ctttcatgt ccagtgata atgtattgg ttatgactgg agcattgat atccattat cggaaacttg gtataatgg ttccataic gcatttcaaa cagttcact cttccaaaa ctttctgac ctctccatg caaccacgga ctttctgic ggtttgca ttatgccata cagcataatg cgatcagtg agattgtctg ttacttggg gatggcttt gtataatcca caaagcttt gacatgagc tcatgactgac ctccatttc cacctctgt ccattgctat tgaccgatt ttgocgtgt gtatccctt acattacaa accaaaaa cgaactccac cataaagcaa ctgtggcat ttgtctgic agttctctt ctttttct ttgtttatg tctatctag gcogattgt cgggtatgca gagctataag atattgttg cttgtctcaa ttcttgcc ctacttca acaattctg ggggacataa ttgtcacta calgtttct taccctggc tccatcattg ttgtattta tggcaaatc ttatctgt ccaaacaga tgcctgagtc atcagccatg tgcctgaaaa cacaaagggg gcagtgaata aacacatlc caagaaaaa gacaggaaa gacggaagac actgggataa gtaattgggg ttgtctggc ttgtgttg cttgttct ttgttctg ttatgacca taccatag actccact cactataa ttggaatcti tagtggtgt ccgttactt aacttact gcaacctct tattcaggc ttuttaalc calgtttca gaaagcattc aagttacatg tgcaggaaa aattatgac tccattcag aaactgcaa ttgttctt gaagcatt aa MDLTYPEDL SSCPKFVNKI LSSHQPLFSC PGDNVFGYDW SHDYPLFGNL P VIMVSISHFK QLHSPNTNFI LSMATTDLL GFVIMPYSIM RSVESCWYFG	Homo sapiens
579	190170	G Protein- Coupled Receptor	NP_055442.1	ADYVEACACSH MSVYAVYART DNLSSYNEAF FTSGFICISG LCLAVLSHIF CARYSMFAAK LLTHMMAASL GTQLFLASA YASPQAEES CSAMAAVTHY LYLCQFSWML IQSVNFWYVL VMNDEHTERR YLLFFLLSWG LPAFVVLLI VLKGIYHQ5 MSQIYGLIHG DLCPFNVA ALFTAALVPL TCLVVVFVVF IHAYQVKPQW KAYDDVFRGR TNAAEIPLIL YLFALISVTW LWGGLHMAYR HFWMVLVLFVI FNSLQGLYVF MUYFILHNQM CPMKASYTV EMNGHPGPST AFFTPGSGMP PAGGEISKST QNLIGAMEEV PPDWERASFQ QGSQASPDLK PSPQNGATFP SSGYGQGS LIADEESQEFD DLIFALKTGA GLSVSDNESG QGSQEGGTLT DSQIVELRRI PIADTHL atgattcat ttatggcagg atccattat atcaaatat tiggcaatct tggcaatct tggcaatct cttacticaa gcagctcac acaccaacca acttctcal cctctccag gccatcacig atttctctt gggattcacc atcatgccat atagiatgat cagatcggg gagaacigt ggtatttgg gcttacatt tgaagattt attatagtt tgaactgat cttagcataa catccatttt tcatcttgc tcagtggcca ttatagatt ttatgctata tttacccat tacttatic caccaataa actattccag tcatataaag attgctact ctatgttgt cagtcctctgg agcatttgc ttctctaga ggcctatgca gatggaatag agggctatga catcttgtt gcttgttoca gtcttgcct agtattgic aacaagctat gggggaccac ctgtttatg gcaagtttct tcatcttgg gtctatgat gggggattt aogggcaaat tttagcaga tccagaaac atgctatgc calcaataac ttgcagaaaa atcaaalaa tcaagtgag aagagcaaaa aagctgcca aactttagga alagtgatag gatttttct attatgttg ttcttgtt tctcacaat ttatggat ccttttga acttctac tctttagt ttgttagt ccttgacatg gtttgctat tttaactca catgtaatcc gttaatat ggtttctct atcccgtt tgcagagca ctgagtaga ttgttagg taaatttgc agctcatgt tccataatc tatttgt atgcaaaa aagtgatga g MYSFMAGSIF ITIFGNLAMI ISISYFKQLH TPTNFLILSM AITDFLLGFT IMPYSMRSV P ENCWYFGLTF CKIYVSFDM LSITSIFHL SVAIDRFYAI CYPLL YSTKI TIPVKRLLL LCWSVPGAFA FGAVFSEAYA DGIEGYDIL V ACSSSCPVMF NKLWGTTLM AGFTPGSMM VGIYKIFAV SRKHAHAINN LRENQNNQVK KDKKAAKTLG IVIGVFLLCW FPCFFTLJD PFLNFTPVV LFDALTWFGY FNSTCNPLIY GFFYPWFRR LKYILLGKIF SSCFHNTILC MQKESE atgattcaaa ctatattcc cgaagaccta tccagtgic caaaattgt aataaagatc ctgtctccc accaaccgt ctttcatgt ccagtgata atgtattgg ttatgactgg agcattgat atccattat cggaaacttg gtataatgg ttccataic gcatttcaaa cagttcact cttccaaaa ctttctgac ctctccatg caaccacgga ctttctgic ggtttgca ttatgccata cagcataatg cgatcagtg agattgtctg ttacttggg gatggcttt gtataatcca caaagcttt gacatgagc tcatgactgac ctccatttc cacctctgt ccattgctat tgaccgatt ttgocgtgt gtatccctt acattacaa accaaaaa cgaactccac cataaagcaa ctgtggcat ttgtctgic agttctctt ctttttct ttgtttatg tctatctag gcogattgt cgggtatgca gagctataag atattgttg cttgtctcaa ttcttgcc ctacttca acaattctg ggggacataa ttgtcacta calgtttct taccctggc tccatcattg ttgtattta tggcaaatc ttatctgt ccaaacaga tgcctgagtc atcagccatg tgcctgaaaa cacaaagggg gcagtgaata aacacatlc caagaaaaa gacaggaaa gacggaagac actgggataa gtaattgggg ttgtctggc ttgtgttg cttgttct ttgttctg ttatgacca taccatag actccact cactataa ttggaatcti tagtggtgt ccgttactt aacttact gcaacctct tattcaggc ttuttaalc calgtttca gaaagcattc aagttacatg tgcaggaaa aattatgac tccattcag aaactgcaa ttgttctt gaagcatt aa MDLTYPEDL SSCPKFVNKI LSSHQPLFSC PGDNVFGYDW SHDYPLFGNL P VIMVSISHFK QLHSPNTNFI LSMATTDLL GFVIMPYSIM RSVESCWYFG	Homo sapiens

GPR57

580

190188

AB049405

G Protein-  
Coupled Receptor  
LGR6

Homo  
sapiens

A

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LLAFWWSVPA LFSFGLVLSE ADVSGMQSYK ILVACFNFA LTFNKFWGTI  
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581 190188 G Protein- Coupled Receptor LGR6 AAG17168.1 P Homo sapiens

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LSGGGFQPS GLALLHTY

582 190414 G Protein-coupled Receptor GPR101 AF411115 A Homo sapiens

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583	190414	G Protein-coupled Receptor GPR101	CAC33098.1		<p>MTSTCTNSTR ESNSSHTCMP LSKMPISLAH GIIRSTVLVI FLAASFVGNL VLALVLQRKP P  QLLOVTRNRFI FNLLVTDLLQ ISL VAPWVVA TSVPLFWPLN SHFCTALVSL  THLFAFASVN TIVLVSVDYR LSIHPLSY SKMTQRRGYL LLYGTWIVAI  LQSTPPLYGW GQAAAFDERNA LCSMIWGASP SYTILSVVSF IVIPLIVMIA  CYSVVFCAAR RQHALLYNVK RLSLEVRVKD CVENEDEEGA EKKEEFQDES  EFRRQHEGEV KAKEGRMEAK DGLSKAKES TGTSESSVEA RGSEEVRESS  TVASDGSMEG KEGSTKVEEN SMKADKGRTE VNQCSIDLGE DGMFEGEDDI  NFSDDVVEAV NIPESLPPSR RNSNSNPPLP RCYQCKAAKV IFIIFSIVYL SLGPYCFILAV  LAVVVDVETQ VPQWVITIII WLFLOCCIH PYYGYMHKT IKKEIQDMLK  KFFCKEKPCK EDSDPDLPGT EGGTEGKIYP SYDSATFP</p>	Homo sapiens
584	190418	Inflammation- Related G Protein-Coupled Receptor EX33	NM_020370	A	<p>taactgtcca ccagaaagga ctgctcttg ggtgagthga acttctcca tatagaag aattgaagc tgaagaaac agcctctatc A  atgtggaaca gctctgagc caactctoc tctaccatg agctctgct gggctatcgt tatgtgcag ttatgtggg  gggtgggtg gctgagcag gcacgtggg caatgtctc accctactg ccttgccat ccagcccaag ctccgtacc  gattcaact gctatagcc aacctacac tggctgact cctctactg acgctcttc agcctcttc tgtggacac tactccacc  tgcactggc caccgtggc acctctgca gggatctg gctctctt ttgctcca atctgtct calctgacc ctctgctca  tcgactggg acgtactct cctatgccc acctaatgt ttctcccaa gtttccagtt ccaaggggat agtctggc  ctgtgagca cctgggtgt gggcgtggc agcttgct cctctggcc tattatc ctgtactg tagctgac ctgcagctt  gaccgctcc gagccggcc ttacacacc acctcatg gcatctact tgtctggg ctacagctg ttggctat ctatgctc  atccaccgc aggtcaaac agcagcacag gcactggacc aataaagt gcagacga agcatccat ccaacctgt  ggccaggact gatgaggcca tgcctggctg ttccaggag ctggacaga ggttagcat agagagacc agtgaaggga  tttactga gccagtcagt gctgccca cccagacct ggagggggac tcatagaag tgggagacca gatcaacag  aagagagcta agcagatggc agagaaagc cctcagaag catctgcca agccagcca atiaaaggag ccagaaagc  tccggattct tcatggaat ttgggaagt gactggaatg tgtttgtg tttctctg cttggcgt agctatcc cttctgtc  gctcaact ctgagoca gactcaggc tcccgggtg gtcacatgc ttgctgcca cctacactgg ctcaatggt  gcatacccc tgtctctat gcagccatga accgccaat ccgccaagca tatggctoca tttaaaaag agggccccc  agttccata ggctccattia gaactgtgac cctagtacc agaattcagg actgtctct ccaggacca agtggccagg  taalaggaga ataggigaaa taacacatgt gggcatctt acaaatct cccagacc tcccaatca agtctctca tcaatgac  aatgtttcag cctagactg cccaaggagt attataat attataaat gaattctgt ctttaaaaa aaaaaaaga  aaaaa aaaaaa aaaaaa aaaaa</p>	Homo sapiens
585	190418	Inflammation- Related G Protein-Coupled Receptor EX33	NP_065103.1	P	<p>MWNSSDANFS CYHESVLGYR YVAVSWGUVV AVTGTVGNVL TLLALAIQPK  LRTRFNLLIA NLTLADLLYC TLQPFSDVT YLHLHWRTGA TFCRVFGLL  FASNSVSILT LCLIALGRYL LIAHPKLPQ VFSAGIVLA LVSTWVVGVA SFAPLWPIYI  LVPVCTCSF DRIRGRPYT ILMGIYFVLG LSSVGFYCL IHRQVKRAAQ  ALDQYKLRQA SIHNSHVART DEAMPGRFQE LDSRLASGGP SEGISEPVS  AATTQLEGD SSEVDQINS KRAKQMAEKS PPEASAKAQP IKGARRAPDS  SSEFGKVTRM CFAVFLCFAL SYPFLLLNI LDARVQAPRV VHMMLAANLTW  LNGCINPVLY AAMNRQFRQA YGSILKRGRPR SFHRLH</p>	Homo sapiens
586	190419	G Protein- Coupled Receptor Ls190419	AJ303165	A	<p>ctttgtcca gagctaaacc agttttct cttccacag caaatatct gacagatc atctctcc agctgtggc aagaagacag  aagctctct acaactatct ctggcactc gctgtgccc acatctgtt cctctttc atagtgtt tggacttct gttegaagat  ttatcttga acaigcagt gcctcaggc ccgacaaga tcatagaagt gctggaaatc tcatccatcc acactccat atggattact</p>	Homo sapiens



587	190419	G Protein- Coupled Receptor Ls190419	CAC33085.1	LCFRAKPVFL LSTANILTVI ILSQLVARRQ KSSVNYLLAL AAADIL VLEF IVFVDFLLED FILNMQMPQV PDKIEVLEF SSIHTSIWIT VPLTIDRYIA VCHPLKYHTV SYPARTRKVI VSVYTICFLT SIPYYWWPNI WTEDIYSTSV HHVLWIWHCF TVYLVPCSF FILNSIIVYK LRRKSNFRLR GYSTGKTTAL LFTITSFAT LWAPRIIMIL YHLYGAPIQN RWLVHIMSDI ANMLALLNTA INFFLYCFIS KRFRT	P	Homo sapiens
588	190427	Cysteiny/ Leukotriene CYSLT2 Receptor	NM_020377	aagttictia agttigaagc gtcagctca accaaacaaa ttaalggtia ttclacatic aaaaacagg aaatttaaat ttattagaa atgtaatgca gcatgtagia aagactaac cag'tgttta aaactcaact tcaaaagaaa agatagtatit gctccctggt tcaitaaac ctagagagat gtaalcagta agcaagaaagg aaaaaggagaa altcacaag taacttttg tgc'tgttic ttttaaccc agcatggaga gaaaatttat gtcctgcaa ccatcaltc cagtatcaga aalggaacca aalggaacct tcaagcaaaa caacagcagg aactgcacaa tugaanaact caagagagaa tttttccaa tigtatalt gataatit tctggggag tcttgggaaa tgggttgicc atalatgttt tctgicagcc ttataagaag tccacatcig tgaagttit catgctaaat ctggccattt cagatctct gttcataagc acgtctccct tcaaggcctga ctatattt agaggctoca attggatatt tggagactg gctgcaggaa ttatgtctta ttcttgat gtcaacatgt acagcagtat ttatttccig accgtgctga g'tgtgtgcg ttcttgcca atggttacc cctttggct tctgcaigt accagcatca gga'tgtgctg g'atctctgt gggatcatat gga'tcttat catggcttcc tcaataatgc tctggagacag tggctctgag cagaacaggca g'tgcacalc atgcttagag ctgaatctt ataaaatgc taagctgcag accatgaact atattgctt gg'tggggggc tgcctgctgc caltttcc acicagcalt t'gtatctgc t'gtatctgc gtttctgta aagatggagg tccagaaalc ggggctgccc gttctcaca ggaaggcact gaccaccalc altcacact t'gtacatct cttctgtgt tcttggccct atcacact gaggaocgic cactgacga calggaaagt ggg'tttatgc aagagacagac tgcataaagc ttgggtatc acactggcct tggcagcagc caatgctctgc t'caatctc t'gctctatta ctt'gctggg g'agatitaa aggacagact aagatctgca ctcagaaaag gccatocaca g'agggcaag acaag'tgtg ttctccctgt tag'tgtgtg t'gagaaaag aaacaagagt ataagagact ctatagtag acc'tgtctt g'atctctt g'tccaltc altcacat agtctcaaa t'gacttgta ttatcac tccacaaca t'gttgattct taatatttag t'gaccatta ctttgtaa taagacctac ticaaaaatt ttattcag'tg tattttagt t'gttgatct taatggagg tacaaggagg aaaaatoccta ctaga'tctt g'ggggctgaa atalcagact gggaaaaaat gcaaaagcaca t'ggatctta cttttctca g'atattgaac cagatctcig gccatcagc ctttcaaat tttcaaaag agccacaact tcccagcti ctocagctcc cctgtctct tcaatccct g'agatlagc aaactaacgac g'clactggaa gccocagagc agaaaagag cacatoccaa g'attcaggga aagactaact g'tgaagagg aggtctgtct atacaagc agcatcaagt cccaagttaag g'acagt'gaga g'aaaaggggg ag'agagat'g g'agcaaaaga g'aaactggcaa taagtggggg aaggaagaat ttattttgc att'ggagag aggttcaac acact'gaaag caacctatt t'clactgtt c'tctgtcc agggat'g g'agggacagc aaaa'gagg g'gggactc gggcaltgc ctagg'aaatg aagaat'gt g'atagaa'g g'agggggg'at calcaaggac at'glatca aattttct g'agatgagc ttagttagc t'gtcgtgacc t'ctcttccc attaatcat t'gggatggaa gccaaaaa aaaggagg'ct c'tc'gaggat taggg'tgag cactaagg g'aaag'tggag tagagggcaa ataggcaaaag t'gtgtgact cctgaaatc taltacatt tccgagaag at'gagtaggg agatgctgc ttccctttg agatag'tga g'aaaaact agatag'tg agaggttct t'ctgtccat t'gaacaaagg ctagg'alac taccactac tatcaccalg accat'gtac t'gacaacaat t'gaatgcat	A	Homo sapiens

589	190427	Cysteinyl Leukotriene CYSLT2 Receptor	NP_065110.1	<p>ctccctgcag ggcagattat gccaggcact ttacattgt tgatccatt accaaagctc tgagtccat ttatagctg aagaaatiga agcttagaga aaltaagaag cttgttaag ttacacag tagtaagagt ttataaatc tctgtgcaga agtgtgct gggtgctc cccaccacia cctgttaaa ctocaggaa gattgtga aagtctaat aagaagctg cttctacc aattctcc cctctcac tctcaaga aaacaaag ttcttca gattgtga ctataglac agtaagggt ggaggatga tggcatcig aaagtggga gggactaagt cagctcat actaaac</p>	P	Homo sapiens
590	190437	G Protein- Coupled Receptor C5L2	NM_018485	<p>MERKFMSLQP SISVSEMEPN GTFNNNSNRN CTIENFKREF FPIVYL IFF WGVLGNGLSI YVFLQPYKKS TSVNVFMLNL AISDLLFIST LPFRADYYLR GSNWIFGDLA CRIMSYSLYV NMYSSYFLT VLSVVRFLAM VHPFRLLHVT SIRSAWILCG IIVLIMASS IMLLDSGSEQ NGSVTSCLEL NLYKIAKLQT MNYIALVVC LLPFFTLSC YLLIIRVLLK VEVPESGLRV SHRKALTTII ILIIFLFCF LPYHTLRTVH LTTWKVGLCK DRLHKALVIT LALAAANACF NPLLYYFAGE NFKDRKLSAL RKGHPQKAKT KCVFVS VWL RKEITRV</p>	A	Homo sapiens
591	190437	G Protein- Coupled Receptor C5L2	NP_060955.1	<p>ctgtgtgoc acgtgtcga caacttaaa ctctcaagg actocaaaa ccagagacac caggagcctg aatgggaac gattctga gtaacagga tgggaattac aggcactct cggaccgcc tgtggactg cggatggcg cctgctggc catgacccg ctgcgcgtgg cccgcctcc acigtatgcc gccatctcc tgggggggt gccgggcaat gccatggteg cctgggtggc tgggaaggte gccgccega ggggtgggtgc cactgtgtg ctccactgg cctgtggcga ttgtgtgc tgtgtgtc tgccatct cggcgtggcc atgtccgtg gaggccactg ggcgtatgt gacgtgggt gtcggcgct ggcctcalt atctgtga ccatgtatgc cagctctg ctctggcag ctctatgt cagctctgc ctctggct tgggctgc ctgtgtgt acgtgtcagc gggcgtgcgg ggtgcaggte gccgtgggg cagctggac actggcctg ctgtcaccc tggctcgc catctaccg cggcgtgcacc agggacacti ccagcccg cgtcagtg tgggtgacta cggcgctcc tcagcaccc agaatgggt gactgccatc cggctttt ttgcttct gggggccctg ggtggcgtgg ccagctgcca cagtgcctc ctgtgtgtgg cagccgagc ctgcggccag cttggcacag ccatgtgtt ggggtttt gtctgtgg caccatcca cctgtgtgg ctgtgtcica ctgtgtggcg ccgagctcc gcactctgg ccaggccct ggggctga cccctatgc tgggcttgc cctgtcac agctgtccta atccatgt cttctgtat ttggggggg ctcaactcc ccgtcactg ccagctgct gtcactggc cctgaggag tccagggcc aggcagaaag tgtggacag aagaaatcca ccagccatga cctgtgtc gagaaggagg tgaaggctgg agagacatig tgggtgtgta tcttctac tcatctca agactggct caggcatagc tggatcagg agctcaatga tgtctcat ttatcttc ctcatcaa cagatatca tcatgacti gctatgca aggccttt aggcactaga gatatagag tgaacaaa agacaaaat cctgcc MGNDVSVEY GDYSDLSDRP VDCLDGACLA IDPLRVAPLP LYAAIFLVGV PGNAMVAWVA GKVARRRVGA TWLLHLAVAD LLCCLSLPIL AVPIARGGHW PYGAVGCRAL PSILLTMYA SVLLLAALSA DLCLALGPA WWSTVQRACG VQVACGAAWT LALLTVPSA IYRRLHQEHF PARLQCVVDY GGSSTENAV TAIRFLFGFL GPLVAVASCH SALLCWAARR CRPLGTAIVV GFFVCWAPYH LLGLVLTVA PNSALLARAL RAEPLVGLA LAHSLNPML FLYFGRAQLR RSLPAACHWA LRESQGQDES VSKKSTSHD LVSEMEV</p>	P	Homo sapiens
592	190438	G Protein- Coupled Receptor Ls190438	LG94114	<p>atgtgggccc ctgtgtct gggctcagc ctctgggtc tctgcacc tgggaggggg gccccattgt gctgtcaca gcaactagg algaaggggg actacgtct gggggggcg tccctcgg gcgagccga ggaagctggc ctccgagcc ggacagggcc cagcagcct gttgtcaca ggtacagagg tgggagggcc tgggtcgggg tcaagggtgac caggtctggg gtgtcttga gctggggccg aggtggccat ctgcgttct gttggccc agtttctct caaacggct cctctgggca ctggccatga aaatggccgt ggaaggagat aacaacagt cggatctgt gccggggctg cggctgggct acgacctt tgatagctc tggagagcctg tgggtggcat gaagccagc ctatgtcc tggccaaagg aggcagccgc gacalcgocg</p>	A	Homo sapiens

[illegible]

593 190438 G Protein- ENSP000000080  
Coupled Receptor 322  
Ls190438

**P** **Homo sapiens**

594	190484	G Protein- Coupled Receptor Ls190484	LG95579	<p>AQDPVKPWQL LENMYNLTFH VGGLPLRFDS SGNVDM EYDL KLWVWQGSVP RLHDVGRFNG SLRTERLKIR WHITSDNQVRP QACAKQPSVR CSRQCQEGQV RRVKGFHSCC YDCVDCEAGS YRQNPDIDAC TFCGQDEWSP ERSTRCFRRR SRFLAWGEPA VLLLLLLSL ALGLVLAALG LFVHHRDSPL VQASGGPLAC FGLVCLGLVC LSVLLFPQSP SPARCLAQOP LSHLPLTGCL STLFLQAAEI FVESELPLSW ADRLSGCLRG PWAWLVLVLA MLVEVALCTW YLVAFFPEVV TDWHMLPTEA LVHCRTRSWV SFGLAHATNA TLAFCLFLGT FLVRSQPGRY NRARGLTFAM LAYFITWVSF VPLLANNVQVV LRPAVQM GAL LCVLGILAA FHLPRCYLLM RQGLNTEPF F</p>	<p>Homo sapiens</p>
595	190484	G Protein- Coupled Receptor Ls190484	ENSMPT2619	<p>ictgactggc tggttctctt gctgcccgg ggccttctca ctgctctggt gggccttggt gttcctggac cctcagctgg gggcctggcc A cggggccggc tctggcgggg tgcctgctggg gcttctct tcaagaggcag gaggctgggc tgggtcttca agggccctg gggtaggatg cgaaggatggg gttggggag cttcalcaca gggactgggc acagactggc cagcaggctg aggggctgg acgttagtgt ctgctctggg ctggggccaca gaactgact gttgctgggc catgaggctt agctgtggct gggctgtggg atccgactgt gggctggggc taggggttcag ctgtggctga gctgtgggat cggatcgtgg ctggaggtgt ggggttccct gaggctgggc cagaggatcc atctgtgact gggcctctgc catggctct ggcagaggtt gacctcaga atctagctgg gtctgtggct cagtggggcgt gaagctggcc gggcctctct cgcagagagc tggcgggaag gacgagagca cggagcgccag cagggttcgg aggtggcac tggccatgag gcaagaggag gggctgaggg agctgtttag taggatcagg tagtggaggt agaccaggcc ctccagagc aggttagccag agtagagctt ccacagggaag gccaggtaga gcaagctgggc cagctggtag ggcagccca gggaccacata ggcctgacaga atgttcttgg ccacaggggc gaagccccgg caggctggcgg gctgtgttgg gagggtggcag gtgcgacagg ctgtggcctg ggttagagcag tggcagtaga gcaagcaggag gaagggcagg agggccccc ggacctcag catctcagc gacagctct cgtgttcca gaagtccagg cagatgacca ggtctgttaca ccagacggca gctcggggga agaccagcca gggcagcgtg aagagtgtgg ccagccacca gacaccggcg cagaccagga gggcgaggcg gactggcggg tggcagggtt accagtgtgg gacacggccc agcaggcagc ggtcggaggtt gaggggcgggc agcagggaaga ggccggagga gtaggacacg cccataggga agtagtagaa gggcgacggca gctgtccca gggccaggtt tccccatgc cggatctta ggaatggaa gggcgctgct gcccagggaaca agaatgaca gaggggcagg ctgagcagga gcaaggccag acgggtgcca gctccatggc gggcctggga gcccggcagc caggccatca accattggc tggcaggcca agggagcagga ggggccacag gaagaccgtt tccagccac ctggggggta ggaagtctca tcatagct ctgtgggggg cctgtggcca gtggcaccca ggtcagctc catgtgtgtg tccattggg gttccagag tctgtgttga caggggaggtt gttgtgttgg aatcaatgt ggtgtgaatg accgagatg ggaagagacgg tctgtgtcat ctccaggcaa gtcacatcc ctccctggcg catgtcat accctttgag taattatct atgcaaggga ctgaagtg atgacctat ggaagtctca tacaatctac ttacag</p>	<p>Homo sapiens</p>

596	190595	G Protein- Coupled Receptor SH120	NM_016334		A	Homo sapiens
				agcaccitggg aaaaaggcaga ccgctgtgagg gggccctgtgg cccagcgttg cgtggccctc ggggagtgagg aagtggaggc aggagccctc ctacacctic gccatgaggt tccgtatcga ctcagcaltc atgattacct cccaaatact attttttga ttgggtggc tttttcat ggcgaatg ttaagagct atgagatagc tcatgtgt gtacaggtga tcttccgt gacgtttga ttcttgca ccattgtga gctcalcalt ttgaaact taggagatt gaatagcagc tccgttatt ttacitggaa aatgaacctg tgcgtaatic tgcgtacct ggtttcatg ggttcctttt acatiggcta ttatttg agcaatacc gactatgca taaacaacga ctgttttt cctgtctctt atggctgacc ttatgtatt tctctggaa actaggagat ccccttccca ttctagccc aaaaatggg atcttaccat tagaacaagt catcagccgg gttgtgtga ttggagtac tctatgct cttcttct gatttggtc tgcacatgc ccatacact acatgctta cttctcagg aatgtgactg acacagatat tctagccctg gaaaggcgagc tgcgtcaaac catggatag alcalaagca aaaaagaaag gatggcaatg gcacggagaa caatgtcca gaagggggaa gtgcataaca aacctacagg ttctgggga atgataaaaa ggtttaccac ttacatca ggaagtgaat atcttact taitcaacag gaagtggalg cttiggaaaga atlaagcagg cagctttttc tggaaacagc tcatctat gtaaccaagg agagaataga atactccaaa acctcaagg ggaatatgt taatttct ggttacttt tctctatta ctgtgtttg aaattttca tggtaacct caatattgt ttgatcgag ttgggaaac ggaacctgtc acaaggga ttgatcac tggatatt ctgggaatcc aattgatgt gaagtttgg toccaacaca ttcttcat tctgttga ataatacg tcaatccat caggagattg ctgacatc ttaccaagt cttttatgoc atcttagca gtaagtctc caatgctat gtcctgtat tagcacagat aatggggcatg tactttgt cctctgtct gctgacatcga atgagtagc cttagaala ccgaccata atactgaag tcttggaga acttggatc aacttalc accgttgggt tgaigtatc ttccgttga ggcgtctc tagcatatc ttcttatt tggctcaaa acaggacca gagaagcaaa tggcaccttg aacttaagcc tactacagac tgttagggc cagtggttc aaatttga tataagggg ggaagaaatg gaaocagggc ctgacttt ataaacaac aaatgctat ggttagcttt ttacatca tagcatatc cttccctc aggtatatac atgacctga gtacatcag ccagaacatg agaggagaa ctactcaag acaatctca gcaagagca tccgtgttg atagaggct ggttagagg cggagaggag ccaagaaact aaagggtgaa aatacacttg aacttggg caagacatgt ctatggtagc tgaagccaaac acgtaggat tccgtttaa ggtcacatg gaaaaggta tgccttgc ttgagtga ctaataaaa tcaagagatg t MSFLIDSSIM ITSQILFFGF GWLFFMRQLF KDYEIRQYVV QVFSVTFAP SCTMFELIIF P EILGVLNSSL RYFWKMNLC VILLVFMV PFYGYFVVS NIRLLHKQRL LFSCLL WLTF MYFFWKLGDV FPILSPKHGI LSIEQLISRV GVIGVTLMAL LSGFGAVNCP YTYMSYFLRN VDTDILALE RRLQTMDMI ISKKRMAMA RRTMFQKGEV HNKPSGFWMG IKSVTTSAG SENLTLIQE VDALEELSRQ LLETADLYA TKERIEYSKT FKGYFNFLG YFFSIYCVWK IFMATINIVF DRVGKTDVPT RGIEITVNYL GIQFDVKFWS QHISFILVGI IIVTSIRGLL ITLTKFFYAI SSSKSSNVIV LLLAQIMGMV FVSSVLLIRM SMPLEYRTII TEVLGELQFN FYHRWFDVIF LVSALESSILF LYLAKQAPE KQMAP		
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597	190595	G Protein- Coupled Receptor SH120	NP_057418.1		P	Homo sapiens
598	190599	G Protein- Coupled Receptor GPCR5B	NM_016235		A	Homo sapiens

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 LDAIWGIVE AVAGAGALT LLLMLLV LPFIKEKEK SPVGLHFLFL sapiens  
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Homo sapiens

Homo sapiens

NP\_057319.1

NM\_014373

G Protein-Coupled Receptor GPCR5B

G Protein-Coupled Receptor GPCR150

190599

190602

599

600









[illegible]



sapiens

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WSLPPFFGWS AYVPEGLLTS CSWDYMSFTP AVRAYTMLLC CFVFFPLLI IYCYIFIR  
AIRETGRALQ IFGACKNGE SLWQRORLOS ECKMAKMLL VILLFVLSWA  
PYSVAVAL VAF AGYAHVLT PY MSSVPAVIAK ASAIHNPIY AIHPKYRVA  
IAQHLPCLGV LLGVSRHSR PYPYSRSTHR SILTSHTSNL SWISIRRRQE  
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Homo sapiens

A

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L TALFLAAS IERFLVAHP LWYKTRPRLG QAGLVSVACW LLASAHCSV  
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CGESPAWRIY VTLLSTLNSC VDPFVYFSS SGFQADFHEL LRRLCGLWGQ  
WQJESSMELK EQKGEEQRA DRPAERKTSE HSQGGGTGGQ VACAES

Homo sapiens

P

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Homo sapiens

A

604 190627 G Protein-Coupled Receptor GPR41 & GPR42 NM\_005304

605 190627 G Protein-Coupled Receptor GPR41 & GPR42 NP\_005295.1

606 190701 C-C Chemokine Receptor 11 NM\_016557

607	190701	C-C Chemokine Receptor 11	NP_057641.1	MALEQNQSTD YYYEENEMNG TYDYSQYELI CIKEDVREF A KVFLPVFLTI VFVIGLAGNS MVVAIYAYK QKRTKTDVYI LNLAVADLLL LFTLPFWAVN AVHGWLGLKI MCKITSALYT LNFVSGMQFL ACISIDRYVA VTKVPSQSGV GKPCWIIFC VWMAALLSI PQLVFTYVND NARCIPIFR YLGTSMKALI QMLEICIGFV VPFLMGVCY FITARTLMKM PNKISRPLK VLLTVVIVFI VTQLPYNIVK FCRAIDIYS LITSCNMSKR MDIAIQVTES IALFHSLNLP ILVFMGASF KNYVMKVAKK YGSWRRQRQS VEEFPDSEGE PTEPTSTFSI gatttggga gtaagggcc agtgcocag tgaacgggg acacggagag ggaagcttg cgttgatc aaggactag ggactccag cttggctga gaacctgg acgocgagtg ctgcttac gggctgacct cctcaact gctcaaac agccctgag ctaactct gctccaggg cgttcgctgc ggcacaggag gccttagta cccagttct gggctctc ttcagtagt gcttgaag ctccagca cgtccgag gctagcctgg caacaaact ggggtaaac gttatctt aggtctgt cccagaca tgaactagag gtactcgc atgcagatgg ccgagtcag cactatagc accatgaata agggcaggg cggggacaag ctacagaa tctcagat tggcccgag ctctggagg cggccaac gagggtgaac gcgtctgc agcttcgga ctgtgtgttg gtagtgggg tggagtggcc gggagggcgg ccgccaagg acocccggg cagggcggg gcaagagag cggacacaga gggccgggg cggatttca tgaagtggt gtactgggg gttggggcc tgggtggg gggcaacct cttgtctt acctgaga gacatggag ggcggcgga agtctctat caacctc gtaccaacc tggcgctgac ggaattttag ttgtctca cccgctt cgggggggg gagaacgtc ttgattcaa atggccctc ggaagggcca tggtagat cgtgtcatg gtgactgca tgaacatga cggcagcgt ttcttcca ctgcatgag tggagcgc taccatgg tggctcggc tctgaagag caccggacc gaggacacgg ccggggcgac tgcggggcc gggagcgggg ggaacgcgc tctctcgg ccaaggcgt gttgtgttg atctggggct tggccggct ggctcgcgt ccagtgcca ttctccac caggggcaag gtagtgggg agggagcgttg cttgggtgt ttccggaca agtgtcggg ccggcagag cagttcggc tggccctca cactcagag aagggtgtg tgggtctgt gctcggcgt ggcatcatt tctgtgta cctgtcgt gttgcgttca tggccgga cggcgcgga ggggacaaag gggggggcc ggtagccgga ggaagccga ccggagccag cggccggaga cgtgtgagag taccaaatc agtgaacatc gttgtctg ccttctct gttgtggc cccaacagg cgtcaacc ctggagcatc ctatcaat tcaacgggt ggccttcag caggagatt tctgtgcca ggtatagcg ttccgtgta gctgtgct agcgcatcc aacagctgcca tcaacccgt cctctact cgtgtggc gtaggtccg caaggcgtc aaggcgtc tgggtgcat cgtgtctct tcatcaca gcatggccc cttaccgc actaacag ccggagcaga ggaatcgggg ctgacggccc cggcgccggc ccacggcgcc	P	Homo sapiens
608	190705	G Protein-Coupled Receptor SALPR	NM_016568	gatttggga gtaagggcc agtgcocag tgaacgggg acacggagag ggaagcttg cgttgatc aaggactag ggactccag cttggctga gaacctgg acgocgagtg ctgcttac gggctgacct cctcaact gctcaaac agccctgag ctaactct gctccaggg cgttcgctgc ggcacaggag gccttagta cccagttct gggctctc ttcagtagt gcttgaag ctccagca cgtccgag gctagcctgg caacaaact ggggtaaac gttatctt aggtctgt cccagaca tgaactagag gtactcgc atgcagatgg ccgagtcag cactatagc accatgaata agggcaggg cggggacaag ctacagaa tctcagat tggcccgag ctctggagg cggccaac gagggtgaac gcgtctgc agcttcgga ctgtgtgttg gtagtgggg tggagtggcc gggagggcgg ccgccaagg acocccggg cagggcggg gcaagagag cggacacaga gggccgggg cggatttca tgaagtggt gtactgggg gttggggcc tgggtggg gggcaacct cttgtctt acctgaga gacatggag ggcggcgga agtctctat caacctc gtaccaacc tggcgctgac ggaattttag ttgtctca cccgctt cgggggggg gagaacgtc ttgattcaa atggccctc ggaagggcca tggtagat cgtgtcatg gtgactgca tgaacatga cggcagcgt ttcttcca ctgcatgag tggagcgc taccatgg tggctcggc tctgaagag caccggacc gaggacacgg ccggggcgac tgcggggcc gggagcgggg ggaacgcgc tctctcgg ccaaggcgt gttgtgttg atctggggct tggccggct ggctcgcgt ccagtgcca ttctccac caggggcaag gtagtgggg agggagcgttg cttgggtgt ttccggaca agtgtcggg ccggcagag cagttcggc tggccctca cactcagag aagggtgtg tgggtctgt gctcggcgt ggcatcatt tctgtgta cctgtcgt gttgcgttca tggccgga cggcgcgga ggggacaaag gggggggcc ggtagccgga ggaagccga ccggagccag cggccggaga cgtgtgagag taccaaatc agtgaacatc gttgtctg ccttctct gttgtggc cccaacagg cgtcaacc ctggagcatc ctatcaat tcaacgggt ggccttcag caggagatt tctgtgcca ggtatagcg ttccgtgta gctgtgct agcgcatcc aacagctgcca tcaacccgt cctctact cgtgtggc gtaggtccg caaggcgtc aaggcgtc tgggtgcat cgtgtctct tcatcaca gcatggccc cttaccgc actaacag ccggagcaga ggaatcgggg ctgacggccc cggcgccggc ccacggcgcc	A	Homo sapiens

609	190705	G Protein- Coupled Receptor SALPR	NP_057652.1	<p>ggcagagcgg acctgctctia ciaccacct ggcgtctgtgg tciacagcgg ggggcgctac gaactgtctgc ccagcagctc tgcctactga cgcaggcctc aggcaccagg cgcgcgtcgg ggcgaagg ggcctcccc ggcggtaaag aggtgaaggg atgaaggagg gctgggg</p> <p>MQMADAATIA TMNKAAGGDK LAELFSLVPD LLEAANTSGN ASLQLPDLWW ELGLELPDGA PPGPPGSGG AESADTEARV RILISVYVW VCALGLAGNL LVLMLKSMQ GWRKSSINLF VTNLALTDQ FVLTLFWAV ENALDFKWPFF GKAMCKIVSM VTSMNMYASV FELTAMSVTR YHVSASALKS HRTRGHGRGD CCGRSLGDSC CFSAKALCVW IWALAALASL PSAFSTTVK VMGEELCLVR FPDKLLGRDR QFWLGLYHSQ KVLGFLVPL GIILCYLLL VRFIADRRAA GTKGGAAVAG GRPTGASARR LSKVTKSVTI VLSFFLCWL PNQALTTWSI LIKFNAPFS QEYFLCQVYA FVSVCLAHNS NSCLNPVLYC LVRREFRKAL KSLLRRIASP SITSMRPFTA TTKPEHEDQG LQAPAPPHAA AEPDLLYYPF GVVYSGGRY DLLPSSSAY</p>	P	Homo sapiens
610	190711	G Protein- Coupled Receptor GPR85 (SREB2)	NM_018970	<p>ggcagagga tttactgt gctcaagat cagattatta cgtagagaa gatttttatt tttgtttca ttaacagat attataagc aaaaagcatg cagaanaaga agcagacgtt ttacattggg aattatgaa agcgtgtcgt clagtgttg gtagagagac tgggaagtgg ttgctaaaa ttltatca cctccacaaa caaacctt cggaaatgtt aanaaagaa aatgcalgt tciagaggca ttcctaagca cccagctgc agcgtgttg gttgtgttg talcatocga cegtgtggac tggtiaggc ttiacgtagag ctccattct ggaaagccti acaagactga ggaatalcag actgcgaac accgggaac gttccttgc agcacagaag caatctct cccatctc gcalctcgt atggcaaac aaggggaaga aaggggaag catgactga gatcagatca gttctcttg tggattat tticagaaa atgtatgat ctatcttc ctgttctia talctagatc atgagacttg actgagctg talcttalc ctccatccat ctatggcga ctatagccat gcagctgaca acatttgcga aaatctcgc ccttaacag ctttcigaa actgactcc tgggtttca taataggagt cagcgtgttg ggcacctcc tgaicccat ttgtctagtg aagaaagaa ccttgcatag agcacctiac tactcctgt tggatcttg ctgtcagat atccctagat ctgcaattg ttccattt gtttcaact ctgtcaaaa tggcttaac tggacttalg ggaacttgac ttgcaagtg atgcttgc tgggggttt gttcttgc cacactgtt tcatgtctt ctgcalcagt gtcacagat acttagctat cgcacatcac cgtcttata caaagaggct gaacttttgg gaacttttgg actgtcttg talgtgttg actgtctg tggccatgac atttcccc gttttagacg tgggcacta ctatcatt agggagagag atcaatgac ctccaacac cgtctcttca gggctaaga ttcttagga ttatgtctg ttctgtct catctocia gccacacagc ttgtctact caagctgata ttttctcc acgatcgaag aaaaagaaag ccagctcagt ttgtagcagc agtccagcag aactggacti ttcatggcc tggagccagt ggcagggcag ctgccaatg gcttagcagga ttggaagg gttccacacc acccaacttg ctgggcalca ggcaaatgc aaacaccaca ggcagaagaa ggtatgtgt cttagagag ttcaaatgg ttcaaatgg agaaagaaat cagcagaatg ttctataaa tgaatttct gtttcaacc ttggggggcc cctactgtt ggcctgttat tggagaggti ttgcaagagg gctgttagta ccagggggat ttctaacagc tctgtctg atgagtttg ccaagcagc aatcaatct ttgtctgca ttittcaaa caggggagctg agggcgtgt ttacacacac ctttttacc tgcagaaat ccaagttacc aagggaacct tactgtgta talgagggag catctgaaa tcttagcct tggaaaact aacctctct gcttagcaat tggggccat agccatatt tgaagaagaa ttcaagaatg gaatcagcag tttaaggat ttgggcaaca ttctgcagtc ttgcaatag ttacattata alccatttt aaatctcaga gttactctgc tgaactgcag caaagggttg taatagaag gggactigaac cactgtcccta agtttctia tgggtcaaaa aactagataa tgaaggtagc aggtgtcgaat tgcagttct aaatgtctg talgtacta catatgaaa aacatcaaaa acaattagc attggacatc ttaataaati aagttagat gtaggttaaat tttgataaa aactaattt agaatgttga agactttaaa acatttata ctactatgt tttgcagaaga ctaaaattt tggggactia aagtactga atccataaa gacgtgccaa tgaattatg gaatalcaca cttaataac cgccttgtaa gttctgggga gcaatcaaa gcagtatatt ggttcaatt agagttaatt tttttgat taatcattg ctattctiaa</p>	A	Homo sapiens

611	190711	G Protein- Coupled Receptor GPR85 (SREB2)	NP_061843.1	<p>ataccactt cctcatclac tagaagatt gctagcattg aactgatha tgggtttt gttgattgg tataaagttt ttcaattca</p> <p>ttataattt acaaatgcta galattggc tgggaggcaa catlaattgt accagocigt cacaaactgag cagttctaatt aatgcagaat</p> <p>aaatacattgt tgcctaaag ggtaactag tatcctcat ctatttagc actggagcaa alagccaagg gaaalcaaat cagtaacigg</p> <p>tcattggcat gcatlaaaa gtcattgaa gatcattat tacttttcc ttittttc acatggttg aaacttaaa gacacatcac</p> <p>tgaataatg agattttct ctacgggtg ctaccttc taaacttc taaacttc taaacttc taaacttc taaacttc taaacttc</p> <p>gctgcaagg ggagaccaca gcttagtat gatccctgc acaatttg aagcattat tctactgaag gcacagttt gttatatt</p> <p>tcgcacatt cagtgatg gtaattaaa ttattcagt tttaactgt gaaacttat attattgt cttgatttt agaatatcat</p> <p>tagagctgt gtagctatt cttaagata cagatgtg aactcaata taaagtgtgca ttggccaaa ttacocgtg tagocigtta</p> <p>attttctga aataagttt acatttttg cacatacaa cgtttttt aattttggag gcaagcacaa actagggaaga ctactttat</p> <p>tatgttttg cttttgat ctgtagcta ctatattca gaciggaaat gtagaataa taatcaaat aatgcigata aactgacata</p> <p>atattatcg taaaagcatt attgttagt ttattatcat catcctcta ttattctaa atgcacagtag tatttagaga tgttacctg</p> <p>cttagtaat tggctcagaa tttaataa aacatcacac tttaattgg agcatagtag catagaaatt tgggtttcta aatataaac</p> <p>ttgaagaag aatggtttac actaacatta tgaacaaact agaaaagtt attatttg ttgtttct gttttgtt ttattgttg</p> <p>gtttttgta agtttttt ttitttgta ttgataatt agatttagga atcaataac acagaattcc atattgtat agtattctg</p> <p>taagagaat atcaataaa ataaagaaa taaatcaatg aatgtttca atgtttaaa aaaaaaaa aaaa</p> <p>MANYSHAADN ILQNLPLTA FLKLTSLGFI IGVSVVGNLL ISILLVKDKT</p> <p>LHRAPYYFLD DLCCSDILRS AICFPFVFNK VKNSTWTYTG TLTKKVIAFL</p> <p>GVLSCFHTAF MLFCISVTRY LAIAHRYFT KRLTFWTCLA VICMVWTLVS</p> <p>AMAFPPVLDV GTYSFIREED QCTFQHSFR ANDSLGFMLL LALILLATQL</p> <p>VYLKLIFFVH DRKMKPVQF VAAVSQNWTF HPGASGQAA ANWLAGFGRG</p> <p>PTPPTLLGIR QNANTTGRRL LLVLDEFKME KRISRMFYIM TFLFLTLWGP</p> <p>YLVACYWRVF ARGPVVPGGF LTAAVWMSFA QAGINPFVCI FSNRELRRCF</p> <p>STLLYCRKS RLPREPYCVI</p>	P	Homo sapiens
612	190725	G Protein- Coupled Receptor GPR26	LG93120	<p>aggctatgg agctcttc caggtgccc atcggtccc actgggggt gctgtcaag tgcctgggt acagcaaggc</p> <p>cgcaccgac ccttttgt actcttact gcgacaccag taccgcaaaa gctgcaagg gattctgaac aggtctctgc</p> <p>acagcgtc caccatccc tctggctca caggcgtc tcacgccag aacattctgc cgggtctga g</p> <p>MNSWDAGLAG LLVGTMGVSL LSNALVLLCL LHSADIRQA PALFTILNLT</p> <p>GNLCTVNM PLTLAGVVAR RQPADRLCR LAFLDTFLA ANSMLSMAAL</p> <p>SIDRWVAVVF PLSYRAKMRL RDAALMVAYT WLHALTFPA ALALSWLGFH</p> <p>QLYASCTLCS RRPDERLRF VFTGAFHALS FLFSFVLCC TYLKVARFHC</p> <p>KRIDVITMQT LVLVDLHPS VRERCLLEEQ RRRQRA TKKI STFIGTFLVC</p> <p>FAPYVITRLV ELFSTVPIGS HWGVLSKCLA YSKAASDPFV YSLLRHQYRK</p> <p>SCKEILNRL HRSIHSSGL TGDSSHQNIL PVSE</p>	A	Homo sapiens
613	190725	G Protein- Coupled Receptor GPR26	LR26	<p>atggccaaca ctaccaggaga gccagaggag gtgagcggcg cctgtccc accgtccga tgcattatg tgaagctgtt</p> <p>actgtggga ctgattatgt gcgtgagcct ggccgggaac gccatttgt cctgttgtt gctcaaggag cgtgccctgc</p> <p>acaaggctcc ttactactc ctgttgacc tggctctggc cgtatggcata cgtctgcgc tctgtctcc ctttgtctg gcttctg</p> <p>ggcaggctc ttatggacc ttatggcac ttatggcac gatttggcc ttatggcc tgcctttg ctccatgcg gcttcatgc</p> <p>tgtttcgtat cagcgtacc cgtatcatgg ccatggoca ccacgtctc tacgcaagc gcatgacact ctggacatgc</p> <p>gcggctgtca tctgcatggc ctggaccctg tctgtggoca tggccttcc accgtctt gacgtgggca cctacaagt</p> <p>tattcggag gaggaccagt gcatcttga gcatgctac ttcaaggcca atgacagcgt gggctcatg ctatgttgg cttgtctat</p>	P	Homo sapiens
614	190741	Sreb3	NM_018969	<p>atggccaaca ctaccaggaga gccagaggag gtgagcggcg cctgtccc accgtccga tgcattatg tgaagctgtt</p> <p>actgtggga ctgattatgt gcgtgagcct ggccgggaac gccatttgt cctgttgtt gctcaaggag cgtgccctgc</p> <p>acaaggctcc ttactactc ctgttgacc tggctctggc cgtatggcata cgtctgcgc tctgtctcc ctttgtctg gcttctg</p> <p>ggcaggctc ttatggacc ttatggcac ttatggcac gatttggcc ttatggcc tgcctttg ctccatgcg gcttcatgc</p> <p>tgtttcgtat cagcgtacc cgtatcatgg ccatggoca ccacgtctc tacgcaagc gcatgacact ctggacatgc</p> <p>gcggctgtca tctgcatggc ctggaccctg tctgtggoca tggccttcc accgtctt gacgtgggca cctacaagt</p> <p>tattcggag gaggaccagt gcatcttga gcatgctac ttcaaggcca atgacagcgt gggctcatg ctatgttgg cttgtctat</p>	A	Homo sapiens

615	190741	Sreb3	NP_061842.1	<p>ggcagctacc catgctgtct acggcaagct gctctcttc gaggatcgt accgcaagat gaagccagtg cagatgggtg cagccatcag ccagaacttg acaftccatg gtccgggggc caccggccag gctgtgtcca acitggtcgc cggcttggc cgtggggcca tggccaccaac cctgtctgggt atccggcaga atgggcatgc agccagccgg cggctacttg gcatggcga ggtaaaaggg gaaaagcagc tggccgcat gttctacgag atcacatgc tttcttctgt cctgtgtga cctacatg tggctgtcta ctggcgagtg ttgtgaag cctgtgtgt ggcaccgcg tacttgcca ctgtgtttg gatggcttc ggccaggctg ccgtcaacc aattgtctg ttctgtcta caaaggacct caagaatgic ctgaggact acgccccctg ctgggcaca ggaagtggc cggctccag agaaccctac tgttcatgt ga MANTTGEPEE VSGALSPPSA SAYVKLVLLG LIMCVSLAGN AILSLVLKE RALHKAPYYF LLDLCLADGI RSAVCFPFVL ASVRHGSSWT FSALSCKIVA FMAVLFCFHA AFMLFCISVT RYMAIAHHRF YAKRMTLWTC AAVICMAWTL SVAMAFPPVF DVGTYKFIRE EDQCFEHRY FKANDTLGFM LMLAVLMAAT HAVYGKLLLF EYRHRKMKPV QMVPASQNW TFHGPATGQ AANWIAFG RGPMPPTLLG IRQNGHAASR RLLGMDEVKG EKQLGRMFYA ITLLFLLWS PYIVACYWRV FVKACAVPHR YLATAVWMSF AQAANVPVC FLNKNLKKK LRTHAPCWGT GGAPAPREPY CVM</p>	P	Homo sapiens
616	190742	G Protein-Coupled Receptor H7TBA62	E32367	<p>gagctctg cagagctag agcagggaag ggggggaag cggcgataga ggttagcag aatgtaat taccaggagc aggaacagaa ctgaggcat gccaggctc acacaggcc tcataggcc agtgtcca gttggggagga aacaggaaagc tgtgacttc tctcttctt cctctcgc tcttagctc aaggctacg ctgtgagat gaattccaac ctgttttgg tggcactgt ccttggcat ggtaagcc tctcagacc ctctggcc aaacaccca aacttctct tgaataat attacataa attgctatt cacatgatt cttcatg atcaigccac tctgtgaag cagacttacc tgaataatt aagcaagaaa acaggcttag gggagtaag taacttcc agtccacgg ctgtgagca gacggcttgg gactccgag cctcgtctt ttctctct ggacacctat gctgattcc tgccttatg ccaactcca gggcccttgc ttggggccc aaggggaacac ttgtgcaga ggaggaggg cttgtcacg ttaggaaag aggcagctct agtttggct ctgtactc tgggacaggg aaactccag ctcttccct ggggtggag cttggggctg cctccatag cggggtaact ctctcttc cctctctct ctgccattia gaggccctct taccggcggg cgtatgaca tataccgg cattcaggct gttgctcggc ctggccacc taccaccaat cttagaccaac aggaaagggg tgggtgtcc ttccacac cctcctctg aggtgtgggc gttggccagg gttcaccaga gggccagag aagcattiaa ttctacagcc tcttcttag agcctttagt gggcttggcc agtctggcag acacttctc tcaagcaccac caatctctga tggccggga tggccacct caatattct gctctccac ccacattct ctggggccaat gctcgggag gcatgtgtct gattgtctgat gatctccga tgccttgaat attcttagcc ctggaggctca tggttggccct gggctatggg ctgtggggg ccaatggctt gctgggaaat ttggcgggtg ttgtgggtact gttgttaactg gcccggagag cccctggccc accttagac acctgtct tcaactggc tctggcggac ctgggacttg cactcactt cccctttgg gtagccgagt cgggacttga ctttacttg ccttggag gttgcccctg caagatgtgt ctgacggcca ctgtctcaaa cgtctatgccc agcattcttc tcatcacg gctgagcgtt gctcgtact ggggtgtgtg catgtgtgtg gggccagagga cccaccttc acttcttg gcccgaatag ccaacctggc agtgtggggc gctgtgtccc ttgtgtactg gcccacagt gttctggggg tggagggtga ggtgtgtgtgt gttgcccctt gctgtgtg ttcccagc aggtacttg tgggggctta ccagctgag agggtgtgtg tggctttcat ggtgtgtgtt ggtgtgtgt ggtgtgtgt cctgtgtgt ctgggttcc tgcagcggc gcaacggggc cggcaggga cagggtgtgt gggccgtct gttcgtatcc tgggtgtgt ctcttcttc tgtgtgtt ccaacatgt ggtactctc tgggtgtgt tgggtgtgt tgggtgtgt ggtgtgtgt tgggtgtgt tgggtgtgt tccctgtcac tactgtgt gacacagca alagctgtcc caacctgt ctgtactgt tctgtgtgt ggtgtgtgt cagggtgtgt caggcactt cagggtgtgt ggtgtgtgt tgggtgtgt ggtgtgtgt ggtgtgtgt ggtgtgtgt</p>	A	Unidentified



617	190742	G Protein- Coupled Receptor H7TBA62	ENSP00000201 359	<p>aaagcagggta ggcagggcgggt gggcgcgcaag caacccccgg gaggagccggcc ctttaccct gctaccaac ctgggacagag ggacacccgg gtagagggggc caagctggag acactctct ttctggatc caccaggtgt aggtatccctt agtctggggg agaaagctggc ctctctgcca gctcagggg cctcaggggga aaaaagctga tcttgatcc ccaactcgg gtaggggga tggggggggc ggggggctcag atcagagcgg gtagtagcaa agcttaagct ttattggga gtaggggaaag aaagaggtat gagaaataac ctctgggatta tccaaatg gcttgacct ttatccag ttaccctc agttcagat ggaacaaaag gattcgtgc tccattcgg ctctcgaag aataccagg aaaaactccc laagggtct aggtatga atcagaggtc agtggccatc tctctgta ccacccccc acctcaaac agggatccc ttgtttct cgggataca ggcacaaaat gccagcttcc cctgtctca ccttaacc tcagtggtga ccactgaac ttgtgctgg caagggccctc agctgcaaaa gcttgatgtc cctgaaaggg atgccagggt tgggggtatg ctgggaattc cagcacctgc caggccctcgg gtagaaaac ctgggtgctga cgggaggtgccc tgtgtgtc ccttaaatc aggtattga agaaaggaag ataatgacaa gtagaagca ttgggtgggggt gaaagggggggt gagcgtataa agagggggggg gggcggggg aacaggctgc aggtagggcc agaaagggcag agactccaga aagtggtgct agttctcct gcccaaatg caaagccag agtataat ttgaggtcag agcacctgga ttacagctt tacctcagc aaattactt acctttgt acctactgt tctaaagt aaaaagggt actaaagatt taacagtgaa atatactgt agctattat ctgttgt tgtgtttg ttgagagag agtctgtc ttgtggcag gctgggaggtc agtggtgtag tctcagctc ctgcaacctc ggttccggg gtcaagcga ttctctgccc ttagctccc gtagagctgg gactacaggc tccgctaac atgctggccc aattttgt aattttat agagacagag ttacacata ttggccaggc ttggctcaaa cttctgacct ctatgtat gcccacctc gcttcccaaa gtgtgtgagt tacaggcggc agccacccga cccggctgag ctatttct tacacctgt gtaaaatgga gacagagagga tgggagggaaa taagctgca gctggggagt ggggagggg aacctgtct cagctgggaa ggttgatgt gctctgagt gggtataat gaaagctca cataaagaa tcaaggggtg gcccgaagc cctctggaa ggtgtgtct ccaggacagg gggtctct ttgttctgt attagatgc atcaatgata aaggttagcc atcagaagga ttctagga ggcagccct agaaaggagg gaggcagagg gaagatgagg tagagctc</p>	P	Homo sapiens
618	190743	G Protein- Coupled Receptor GPRC5D	NM_018654	<p>atglaaagg actgcatga gtccactga gactatttc ttctgtga cggcggagggg ccagggggga tcaatgga gtccctggcc atactggca tgggtgac aatttgta ctttagcat ttcttctc catgggaaag atccagact gtagccagg gaatgtctc occaccagc tcttctct ctaggtgc cgggggctct tgggactgc ttgtcttc atcatgagc tcaatcaaa aatggcccc gtagctact ttctttgg ggttctct ttctgtgt tctagct cttagctat gcttccaatc tagtgaagt gggtgggggt ttgtctct tctctggag gacaattctg tgcattgta ttgttgcaa tctattatg ccactggagta tgtgactc atcatgaca gaggatgat gttgtgaa atgacacct gccagctcaa ttgtgacttt gttgactcc ttgtctagt ccttctctg atggccctca cattctgt ctccaaagg acctctgtg gcccgtgga gaaagtggaag cagcatggaa ggctcatct talcagtg cttctcca tcalatcg ggtgtgtggg atctcagc tctgagagg caaccggcag ttccagcgac agccccagg gtagcagccg gtcgtctga ttgtctgggt caccacgca tgggtttct ttgtctgta calgtccct gagctc'gca ttcttacaag atc-gtga caggaggtccc ctttaagg caatgc'gccc cccgtcacag octaccaaa cagcttcaa gtaggaagacc agggagctc caggccoga gacagtatg gtagctggga gtagtagca ttaactcat atggtactcc cattagccg cagactgtg atccacaca agaggtttc atccacagg cttaaactaag cccccagca</p>	A	Homo sapiens

619	190743	G Protein- Coupled Receptor GPCR5D	NP_061124.1	gatcaggag gatataa MYKDCIESTG DYFLLCD AEG PWGIIIESLA ILGIIVVTILL LLAFLFLMRK IQDCSQWNVL PTQLLFLSV LGFLGLAF AF IIELNQQTAP VRYFLFGVLF ALCFSCLLAH ASNLVKLV RG CVSFSWTTL CIAIGCSLLQ IIATEYVTL IMTRGMFVN MTPCQLNVDF VLLVYVFL MALTFVSKA TFCGPCENWK QHGRLIFTV LFSIIWVWV ISMLLRGNPQ FORQPDWDDP VVICALVTNA WVFLLYIVP ELCILYRSCR QECPLQGNAC PVTAYQHSFQ VENQELSRAR DSDGAEEDVA LSYGTPIQP QTVDPTECF IPQAKLSPQQ DAGGV	P	Homo sapiens
620	190744	G Protein- Coupled Receptor GPCR5C	NM_018653	cggcagggtg gggaaacctcc ctgaaggtg cccgtgtcac agcaccttg aagacagcca ttggccatgg ggaaccaacc agagccgtggc ctggagagcca ggaaggccat ccacaaagcc ttgggtgatg gcttgggact gctctcttc ctgttccag gggcttgggc ccaggggccat gtccaccg gctgcagoca aggcctaac cccgtgtact acaaccttg ttgacctct ggggcgtggg gcatctct ggaaggccgtg gctggggccg gcatgtcac cagttgtg ctacacatca tctgttggc cagctcccc ttgtgcagg acaccaagaa agggagccgtg ctggggacc accgttctt ccttctgggg accctggggc tctctgct cgtgttggc ttgtgttga agcccgact ctccactg gctctcggc gcttctct ttgggtgtc ttgccaatc gttctctg tctgggggt cagctttg cctcaact cctggcccg aagaaccag gggcccgggg ctgggtgac ttacttgg ctctgtct gacctgtga gaggatca tcaataga gtggctgac atcacctgg ttggggcag ttggcagggg gggccacag gcaacagcag gcaaggctgg gccgtgtg cccctgtg cgttgcacac atggacttg tcatggcact catctact atgtctgtc ttgtgtgtg cttctgggg gcttggccg ccttgtgtg ccgtacaag cgttggcga agcatgggt cttgtctc ctacacag ccactcct ttgcataagg gtgtgttga tctgtatga tacttggc aacaagcagc acaacagtcc cacttggat gacccacg ttggccatgc cctgcgc aatgcttggg ccttctct cttactg atcccgagg tctccagg gaccaagtc agccagagc aaagctacca gggggacatg taccacacc ggggcgtgg ctatgagc atcctgaag agcagaagg ttacacatgg ttgttggaga acaaggctt ttccatggat gaggcgttg cagctaaag ggcgtgtga ccatagcg ggtacaatgg gcatctgtg accagtgtg accagccac ttgatgtgg cttgatgaca agttccgtc gaaaggagct tactacatca tcttccacg gggccacg aacagcagg ttatgggca gccaactg accctgggg ctgaagacat gactcggc cagagccacc agggggccac accgccaaa gacggcaaga acttccaggt ctttgaag ccttgaac ccttactgt gggacttga gagggtggc gaggagaggc ggggcgatt gggggggggc ctgaggacct gggccgggc aagggtact ctaggtct cctccctg gcaggcagc aacatgtcc ccagatctg aagggtct cttctgcca gtttgggt ggtgtcatg ggtgtccca cccatctc agtgtgtg ggtcaggga gccaaccca gctctgccc aggtacct ggggtgac actccagoca aatagtgtc tcgggtgtg ggttggcag ggcctgtt ttcttggga ttctgcaac ctcaagagac ttccagggc ctaggccg gatctgtc ctctgtgg acaagggt cctataaat acatttgc ttataaaa aaaaaaaa aaaa MGTPPEPLG ARMAHKALV MCLGLPLF PGAWAQHVP PGCSQNLPL YYNLCDRSGA WGIVLEAV AGIVTFVLT ILVASLPV QDTKKRSLG TQVFFLLGTL GLFCLVFACV VKPDFSTCAS RRFLFGLFA ICFSLAAHV FALNFLARN HPRGWVFT VALLTLVEV INTEWLIT LVRSGEGGP QGNSSAGWAV ASPCA VANMD FVMALYV ML LLLGAF LGAW PALCGRYKRW RKHG VFLLT TATSAI WV WVMYTYGNK QHNSPTWDDP TLAIALAANA WAFVLFYVP EVSVQTKSP EQSYQGDMPY TRGVGYETIL KEQKGQSMFV ENKAFSMDPE VAAKRPVSPY SGYNGQLTS VYQPTMALM HKVPSEGAYD IILPRATANS QVMGSANSTL RAEDMYSQS HQAATPPKDG KNSQVFRNPY VWD	A	Homo sapiens
621	190744	G Protein- Coupled Receptor GPCR5C	NP_061123.2		P	Homo sapiens

622	190745	G Protein- Coupled Receptor LGR7	NM_021634		A	Homo sapiens
				atgacatcgt gttctgtctt ctctacatc ttaattttg gaaaataatt ttctatcggg ggtggacagag atgtcaagtg ctcccttggc tatttccctt gttgggaacat cacaagatgc ttgctcagc tctgctcagc taacgggtgg gacgactcgg ggaatcaggc cgtatggagc aactgtggag acaacaatgg atgttccatg caatttgaca aataatttgc cagtttactac aaaatgactt cccaatctcc tttagggca gaaacacctg aatgtttgtt cggttcttgg ccagttgcaat gtttttgcca aggtctggag cttagctgg atgaacaac ttacgagct gttccatgg ttcttcaaa tggactgca atgtcactc agtggcaact aataagaag ctctctctg atgtctcaa gaattatcat gatctcaga agctgtacct gcaaaaacat aagattacat ccatctccat ctatgtctc agaggactga atagccttac taaactgtat ctacatcata acagaataac ctctctgaag ccgggtgtgt ttgaagatct tcacagacta gaatggctga taatigaaga taalcacct agtggaaatt cccaccacac attttatgga ctaaatctc ttattctt agtctctgatg aataacgtcc tcaccgttt acctgataaa cctctctgc aacacatgcc aagacatcat tggctggacc tgaaggcaca ccatatccat aatttaaga atttgactt tatttctgc agtaatttaa ctgtttatg gatgaggaaa aacaaaata atcactttaa tgaataact ttggacctc tccagaact ggtatgaattg gatttaggaa gtaataagat tgaatacti ccacctta tatcaggga cctgaaggag ctgtcaaat tgaatcttc ctataatoca atocagaaa ttcaagcaaa ccaattgat tatctgtca aactcaagc tctcagocct gaaggagattg aaatttcaaa latccaacaa aggaatttta gacctttat gaatctct catatatt ttaagaatt ccagttactt ggtatgcac cacatgtcg cagctgtaaa ccaaacactg atggaaattc atctctagag aatctctgg caagcattat tcagaagatga ttgtctggg ttgtatctgc agttacctgc ttggaaaca ttgttgc atgtcagca cctatatac ggtcttgagaa caagctgtat gccatgtcaa tcattctct ctgtctggcc gactgtctaa tgggaataa ttatctg atcggaggtc ttgacctaaa gttctgtgga gaatacaala agcatgcga gctgtggatg gaggatctc atgtcagct tggagatct tggccatc tggccacaga agtatcatt ttactgttaa catcttgac atgggaaaaa tacatctga ttgtctatcc tttagatg gtagagactg gaaatgcag aacaattaca gttctgattc tcaattgat tactgtttt atagtgtct tcatccatt gagaalaag gaattttca aaactata tggcaccat ggtatgtct tcccttca ttcaagaat acagaagga ttggacca gattttca gttgcaatt ttctgtat taatttggcc gcatlata tcatagtt ttctatgga agcatgttt atagtgtca tcaaaagtc alaaacgaa ctgaataacg gaalcaagt aaaaaagaga tgalcttgc caaagttt ttctttag tattttaga tgcattatg tggalacca ttuttagt gaaatttct tcatgtctc aggtagaat accaggtacc ataacctt ggttagatg ttattctg cccaataca gttcttgaa cccaattct tatctctga ccacaagacc atttaagaa atgattatc ggttttgta taactacaga caagaanaa ctatggacag caaaggctag aaacataag ctccatcat catctgggtg gaaatgtgc cactgcagga gatgccacct gatgtaatga agccggacct ttacatac cctgtgaaa tgcactgat ttctaatca acgagacta attctattc atga		
623	190745	G Protein- Coupled Receptor LGR7	NP_067647.1		P	Homo sapiens
				MTSGSVFFYI LFGKYFSG GGQDVKCSLG YFPCGNITKC LPQLLHCNGV DDCGNQADED NCGDNNGWSM QFDKYFASY KMTSQYPFEA ETPECLVGSV PVQCLCQGLE LDCDETNLRA VPSVSSNVTA MSLQWNLRK LPDFCFKNYH DLQKLYLQNN KITSISYAF RGLNSLTCLY LSHNRJTLK PGVFEDLHRL EWLIIEDNHL SRISPTFYG LNSLILL VLM NNVLTRLDPK PLCQHMPLRH WLDLEGNHH NLRNLTFISC SNTVL VMRK NKNHLENENT FAPLOKDEL DLGSNKIENL PPLIFKDLKE LSQNL SYNIP IQIQANQFD YLVKLSLSL EGIEISNIQQ RMFRPLMNL HIYFKFQYC GYAPHVRCK PNTDGISSLE NLLASIIQV FVWVVSATC FGNIFVICMR PYRSENKLY AMSIISLCCA DCLMGILFY IGGFDLKFGR EYNKHAQLWM ESTHCQLVGS LAILSTEVS LLLFLILEK YICIVYPPRC VRPGKCRIT VLLIWTGF IVAFIPLSNK EFFKNYYGTN GVCFLHSED TESIGAQIYS VAIFLGINLA AFHIVFSYG SMFYSVHQA ITATEIRNQV KKMILAKRF FFIIVFDALC WPIFVVKFL SLLQVEIPGT ITSWVVFIL PINSALNPIL YTLTRPFKE MIHFWYNYR QRKSMDSKGQ KTYAPSIWV EMWPLQEMPP ELMKPDIFTY PCMSLSISQS TRLNSYS		

624	190748	GPCR Ls190748	AX147756		A	Homo sapiens	<p>gcttgggggt gggggatgct gggacaggggg tcaattgctt gaagcaagtg cttcatccc cctagtctct gctgatctag ttgggctcc agatggggga ggaagaaggc acttgaaac ttcttgccc ttaccgtctt agccatcaa ctttgagctg gagatagtga cgaatgaca ggaacttcc ctgggctct ctggggcaca attctggcc gagaagaaga ggaagaaatga ggtgagcacc ttctcact ctggggccat ggttagagc tgcagtogca cctcttgctg ccaataggca tagatgagtg ggttagagcag ggaattggcc acgccgagca gccacaggta cgttcagc actagctaga ggtgacatc ctggcaggcc acctgcacaa tgcagtgat aaggaagggg gtcaggata ggaagaagt ccaataggta acagacacag tacggagagc tttagagtcg ctgggggctcc gtagggatcg ataactcca gccatggctc ctgcatgtc calctttcga atctgctggc tgttcattga ggaacttg agcatgtcg agtagaagaa gacaaagggg agcatggctg ggaagaaggc aacgcagagag aggttcagca cgaatgaggg gtagaataca gcaagaagc tgcacggcc ttgtaggca gttgcttgga acatggggat tccgagtggg aggaagccaa tgaagtaaga cactaacac agccggcga tgcaggccc ggccacgaac ccacataga tcttcaagta gccgaaggcg tcttgatgg caagtgacct gtcaagggtg atcagatga ccgtgagagc agaaggcagct gcggaggaag tgaacaatgc catccgagg ctgcacaggg tcttctgtgt gggccagaaa gggctgggaga gctggctgtg gagttagcca gtagatggcca cacaatcaa ggtgtcagcc acagccagat tcaaggtaga gcaaggagacig acaccatcat tctgttgat caacagcagc acagccacag ccactagtg gtagtagca atgattgagg agggccaggag agcaaggatc actcaaatg agaaagatga ttcatgtct cgaatggga ggaacttact taccaggga tg</p> <p>MESSFSFGVILAVLASLIJA TNLVAVAVL LIHKNDGVS LCFTILNLAVA DTLIGVAISG LTLDQLSSPS RPTQKTLCSL RMAFVTSSAA ASVLTVMILT FDRYLAIKQP FRYLKIMSGF VAGACIAGLW LVSYLIGFLP LGIPMFQTA YKGCQSFFAV FHPHFVLTLS CVGFFPAMLL VFFYCDMLK IASMHSSQIR KMEHAGAMAG GYRSPRTSD FKALRTSVSL IGSFALSWTP FLITGIVQVA CQECHLYLVL ERYLWLLGVG NSLLNPLIYA YWQKEVRLQL YHMALGVKKV LTFLLFLSA RNCGPERRPRE SSCHIVTISS SEFDG</p>
625	190748	GPCR Ls190748	CAC39548.1		P	Homo sapiens	<p>atggccaact ccacagggt gaagcctca gaagtcgag gctgttggg gtagatctg gtagctgtcg tggaggtggg ggcactgtcg ggaacaggcg cgtgtgtgtg cgcagcccg gactgcgca cgcgtctac ctggcgacac tgtgtgtgt ggaactgtcg gggccggct ccatatgcc gctggggctg ctggccggcac cgcggcccg gctggggccg gtcggctgg gcccggcc atggccggcc gctcgcttc tctcgccgc tctgtgtcg gctgtgcagc tgggggtggc cgcactggc ctggcagct accgctcat cgtgcaccg ctggcgccag gctcgcgcc ggcgctgtg ctgtgtc cgcggctgtg ggcggcgccg ggaactgtcg gcgcgttc cctgttggc cgcggcccg caccggccc tgcctgtct cgtgtgtcg tctgtgtg gggcttggg ccttccggc cgtgttggc ctgtgtggc ttgcgtcgc cgcctctt gactcgtc gactcgtcg gcatctgt ggttggcgct cgcgttggc cgtgttggc ttgcgttggc cgcagcgcg cggcccgaaa gccgaagcgg ctgtaccg ggtgcctac tgggcttgc cggctaccc ctctgttgc gggctgtc agcgccccgt gcgcttggca ctggggcc tcttgcgg tgcactgt ggaactgt gggcttgc tccgcaagcc tggcaccgc gggcactt gcaatgctc cagaagccc cagaaggccc tggcgtggc cttctgagg ctccagaaca gacccccg ttggcagag ggcggagccc cgcataccag gggccacctg agatctct cttctg</p> <p>MANSTGLNAS EVAGSLGLIL AAVVEVGALL GNGALLVVVL RTPGLRDLAL Y LAHLCVVDDL AAASIMPLGL LAAPPPLGR VRLGPAPCRA ARFLSALLP ACTLGVAALG LARYRLIVHP LRPGSRPPV LVLTAVWAAA GLLGALSLLG PPPAPPPAPA RCSVLAGGLG PFRPLWALLA FALPALLLLG AYGIFVVAR</p>
626	190749	G Protein-Coupled Receptor GPR62	AF317653		A	Homo sapiens	
627	190749	G Protein-Coupled Receptor GPR62	AAK12638.1		P	Homo sapiens	

628	190774	Histamine H4 Receptor	NM_021624	<p> RAALRPPRPA RGSRLRSDSL DSRLSILPPL RPRLPGGKAA LAPALAVGQF  AACWLPGCA CLAPAAARAAE AEAATVWVAY SAFAAHPLY GLLQRPVRLA  LGRLRRALP GPVRACTPQA WHPRALLOQL QRPEGPVAVG PSEAPEQTPE  LAGRSPAYQ GPPESSL  ggagagactac acatttagg tatgagta gaaacalac ttgicagaaat tgcctggcgt gattaattg ctaattgac ctctcacc  attgatgag atgcagata ctaatacac aatacaatta tcaataagca ctgcgtgtac tttagcatt ttatgtct tagtagcttt  tgcataatg ctaggaaatg ctltggatc tttagcttt tgggtggaca aaaaacttag acatcgaagt agttaattt ttctaact  ggcatctct gactcttg tgggtggat ctcatctct ttgacatcc ctacacgct gttcgaatg gatttggaa aggaataatg  tgaatttgg ctcatctg actatctg atgtacagca tctgtatac tctgtatct catcagctt catcagatc gacagatcc tgcagctc  aaatgctgct tctatagaa ctcaacatc tgggtctg agatgttga ctctgagttg gggcttgg gctcggctt tctatgtgaa  tggggcaatg attctagt cagagcttg gaaggatgaa ggtatgtgaaat gttgaacctg attttttg gtaatgtaca tcttgcctat  cacatctc ttggaattg tcatccagt catctagc gcttatcca acatgaatat ttatggagc ctgtggagagc gtagcatct  cagtaggtgc caaagccatc ctggagctgac tgcctctct tcaacatct gttggacatc attcagaggt agactatct  caaggagatc tctctgca tgcacagagag ttctgtcatc ctctatcca gtagagacaga gtagaagagag tatgtctalg ttctcaca  gaaccaagat gatatgaat acaattgctt ccaaatggg ttctctcc caatcagatt ctgagctct tcaocaaagg gaacatgtg  aacgtctag agccagagaga ttggccaagt cactggccat tctatgggg gtttttgg ttgctgggc lcatatct ctgtcaca  ttgtcttc atttatcc tcaagcaacag gttcaaatc agtttggat agaatgcat ttggctca gttgttcaat tctttgca  atctcttt gtaacctg tgcacaagc gtttcaaaa ggtttctg azaatatt gataaaaa gcaacctcta ccaatcaac  acagctggc agtatctct taagagcaat ttctacact ctgtataatt tagtctcaat ctacctaaa tgaatcaggt ctgacctta  tcttggctt ttactctac caacagatct gcaattgaa gtaaatggta aattatoca gtagaataa gtagataat atgactgtat  aalattttg taacttga gtaataatg tactatc ttctagct tcaacttc ctgtcttt agacttaat ttcatctga  ttacaaaaat ccaattttt ttcttca tttctalg alaatacat cttaatgaa ttctcttt taattttt cgtaatagaa  actatccag ttgaaatc attcctaaa gcatgcaata gtaaaaaagaa cctctggct gggactgccc aactctgct  tgcacagttg gttgggtgag tagggtttga gttggcaaga gcaagggtgagc gtagtggc caggtgagct cctgtgtgtg  tccagattt alattcttaa tccagtaag gtagaagcgt tagtgggtg gtagagagag agcaggtgag atgagagag  aggtctctag tgaagtatt ttggagccc tgggtgtcac aggtatgaa gtagagagag atgagagag atgagagag  tgaagatg gctgtccca ttctctg ttctttt ctacttca catcagctt ctttttg agacatagaa ataatagaa  taagagatg tgaagagat gcatgataa actagataga cctgtatag agtcatgaa ctatgtatg tcaataata ttatttaa  aaattttt ttgtgtcc ggtcatgtgtgt ctacgctt aaatccagc actttggag gccaaggtgtg gctgtatcag  aggtcaggtg atcgaagaca tctgtcccaa calgtgtgaaa cccatctgt actaataatc aaaaagatg ctgtgtgtg  cgtccgtcag ctgtgtccc agtctctg gtagctgtgag caggtgtgag atgtgaacc gtagaggtgaa gtttggcag  cctgtgcaaa gtagagat ctgtctaaa agtaaaaaaa attttttt ttgagagagc actgtctct gttccacagc ctggaggtga  gtaatgcaat calagctcac tgcagctg aactcttgg ctcaagcaat cctgtgctt tggcttccca agtatgtg  actacagatg ctgcacca cactgtgata ataaaaaa taatttga gtagatgagat ctcatgtgt tgcacagctt ggtgtgcaat  aatatttt taaaaaaa tttaaaag gtttttga acagatctt gctgtgtcac caggtgtgaa gtagagatg atgtatgag  atcactgcaa cctgtctc ctgggttcaa gctgattctg tgcctaaagc accgtgagagc ctgggtatg aggtgtcagc  cacatgctt ggttaattt gtagatgag gttttgcca ttgtgtcag gctgtgagat ttittttt taattttg  aagacaggtt attgtgtgt tggcagag ggtctcaac tctgtgagc aaacatct cccgtctg cctccaaag  tctgtgagat ataggcaca gacaccaca taattatg ctgtatgca attattt taatatgt tigtattac ttatgtct  taatgtatt gccaatatt ttacattt actgtcaga ggtatctt ttatgtgt ttacatag ttactgt ctgacgatt </p>	A	Homo sapiens
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629	190774	Histamine H4 Receptor	NP_067637.2	<p>acatttiatt agtttggtta tgtttgtcc tttaaaaca ttttttttg agatgggggt cttgtctctgt tggccacgca ggaagtgcagt ggcatgctct cagctcacig cagcccgag tgcctaggct ccagcaatct tctttagctca gctccacagag tagctgggac cgaggagact tggccacacg cccactataa aattttttaa attgttgct tcttgaagt gttcttgcc tgtctttgtc acaaaattc atttttca tagttaatt catctctocg gtaagatttt attgtgttt ctmtaacc ttgcagtc ttacacoggt tgggtatttt calgtttct agaaacttta accctttaac ttcaacatt aaataacaag tcttttaagt acatgagtc ttagaagtgt acataatgt talacact talgccttac aftaaagtc aataagaa alacatgtt aacattcaat aataatttta aaataatgag aaataaact tcataaatgc aaaaaataa aaaaaaaa</p>	P	Homo sapiens
630	190823	Formyl Peptide Receptor 1 (FPR1)	NM_002029	<p>MPDINSTNL SLSTRVILAF FMSLVAFAIM LGNALVILAF VVDKNLRHRS SYFFLNLAIS DFEVGVISIP LYIPHTLFEW DFGKEICVFW LTDDYLLCTA SVYNIVLISY DRYLSVSNV SYRTQHTGVL KIVTLMVAW VLAFLVNGPM LVSESWKDE GSECEPGFFS EWWYLAITSF LEFVIPVLV AYFNMMNYWS LWKRDHLSRC QSHPGLTAVS SNICGHSFRG RLSSRRSLA STEVPASFHS ERQRRKSSLM FSSRTKMNSN TIASKMGFS QSDSVALHQR EHVELLRARR LAKSLAILLG VFAVCWAPYS LFTIVLSFYS SATGPKSVWY RIAFWLQWFN SFVNPLLYPL CHKRFQKAFI KIFICKKQPL PSQHSRSVSS</p>	A	Homo sapiens
631	190823	Formyl Peptide Receptor 1 (FPR1)	NP_002020.1	<p>ccagaccta gaactacoca gagcaagacc acagctgggtg aacagtcocag gagcagacaa gagggagaca aattctctc tcccacgaa catcttggg agggacacctg ctgtatctgc tggctatctc ttcttgata tcatcacta tctgttatt gcagtcacct ttgtctocgg ggtctgggg aacggcttg tgaictgggt ggcctggatc cggatgacac acacagtcac caccatcagt tacctgaacc tggccgtggc tgaactctgt ttaccitca ctttgccatt cttacgtgc aggaagcca tggggagaca tggccttic ggctggttcc tgtgcaaat cgtcttacc atagtgagca tcaactgtt cggaaagtc ttctgacg cctcatigc tctggaccg tgtgtttgcg tcttgatcc agtctggacc cagaaccacc gcaccgtgag cctggccaag aagggtgata ttggccctg gggtgaggt ctgtctctca cattgccagt tatctctgt gtagctacag taccctgtaa aacgggggaca gtagccigca ctttaact ttgcccctgg accaagacc cttaaagaga galaaatgtg gccgttgcca tgttacoggt gagaggcaic atccgggtca tcaitggctt cagcgacacc atgtccatcg ttgtgtcag ttatgggctt atggccacca agatccacca gcaaggcttg ataaagcca gtgtccctt accggctctc tctttgtc cagcagcct ttctctgc tggcccat atcaggtgtt ggccctata gccacagica gaatccgiga gttatigcaa ggcattgaca aagaatgtg taitgacgtg gtagtgacaa gtagccctggc cttctcaac agctgcctca acccatgt ctatgtctc atgggccagg acttccggga gaggctgac cagcccttc ccgccagct ggagaggcc ctgaccgagg actcaacca aaccagtgac acagtlacca atttactt acccttgcga gaggtggagt tacaggcaaa gtagggaggagg agctggggga cacttgcag ctccagctc cagctgtc taccctgag ttaggctgag cacaggcatt tctgtctat ttaggatta cccactatc agaaaaaaa aaaaaagcct tigtgtccc tgaattgggg agaataaaca galatgagtt</p>	P	Homo sapiens
632	190824	Formyl Peptide Receptor-like 2	NM_002030	<p>METNSSLPNTN ISGGTPAVSA GYLFLDIITY LVFAVTFVLG VLGNGLVWV AGFRMTHVT TSYLNLAVA DFCFTSTLPF FMVRKAMGGH WPFGWFLCKF VFTIVDINLF GSVFLIALIA LDRVCVCLHP VWTQNHRTVS LAKKVIIGPW VMALLTLPV IIRVTVPGK TGTVACTNF SPWINDPKER INVAVAMLTV RGIIRFIIGF SAPMSIVAVS YGLIATKHK QGLIKSSRPL RVLSFVAAAF FLCWSPYQVV ALIAVTRIRE LLQGMVKEIG IAVDVTSALA FFNSCLNPMI YVFMGQDFRE RLIHLPASL ERALTEDSTQ TSDTATNSTL PSAEVELQAK</p>	A	Homo sapiens

(FPRL2)

633 190824 Formyl Peptide Receptor-like 2 (FPRL2)

NP\_002021.2

P

Homo sapiens

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VHVMIDINLF VSVYLITIA LDRICVLHP AWAQNHRMMS LAKRVMITGLW  
IFTIVLTPN FFWTTIST NGDTCIFNF AFWGDTAVER LNVFITMAKV FLILHFUGF  
TVPMISITVC YGIIAAKIHR NHMKSSRPL RVFAAVVASF FICWFPYELI GLIMAVWLKE  
MLLNGKYKII LVLINPTSSL AFFNSCLNPI LYVFMGRNFQ ERLIRSLPTS LERALTTEVPD  
SAQTSNTHIT SASPEEETEL QAM

634 190948 EMR2 Hormone Receptor

NM\_013447

A

Homo sapiens

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635	190948	EMR2 Hormone Receptor	NP_038475.1	<p>agcacctcac tgcattgca gctctgctc tgcctctcc tggccacct cctctctc tggcaattg atcaaacggg  acaaagggt cgtgtcca tcatcgccg taccitgac tatctiacc tggccacct caccctggatg cgtctggagg  ccctgtacct cttctact gcacggaacc tgcagggtg caactacta agcatcaaca gattcatgaa gaagctcatg  ttccctggg gctacggagi ccagctctg acagtgcca ttcttgacc ctcagcct caccctatg gaacacctc  ccgtctgctg ctcaaccag aaaaaggat tatatgggc ttcttgagg cgtctgacc catctctct ggaatttag ttctctt  gggtgacttc tggatttga aaaaagact cctctctc aatagtgaag tctctgacc cctgacct ccggaacaca aggaigtg  cattaaagc gacagctcag cttctacc tggctgacac gttgtgtctg ggtcatctg aggtgggtcc ggtgcccgg  gtcatggct acctctcac atcatcaac agcctgacgg gttctcat cttctgtg tctgctcc tcatgocagca  ggccggggag caatatggga aatgttcaa agggatcagg aaattgaaa ctgagtctga gatgcacaca ctotcagca  gtgtaaggc tgcacctcc aaocagca cgtttaacia gaaaatct ctgataaga tctctct tgcctgtg  aaaatcga caatcttga gccatcaga ggggaagaa aagacttgt tctgtgt tcaagaat caccatgta gcaatlgaa  ggatgtatg gaaggctg ttggcatca attctgcag aaacgggaaa tcttccatg ccgtcaatg gctatcaaa  ctctcagcal atggacggcc agctgtggcc calacttgg tcatctgaa gcaaatat tatgaagctg tagaagctg agactctt  cacagcctc cttctaca aagactctc caaatctaa aatgaagcag gaaaacaagc ctgaaggagc ttcataccg  acaacatcg aaaggactag aatgtcaca ccagatcg gattcttaa tttttgt tttttgt tttttgt tttttgt tttttgt  ttgattatt agtcatgta aaaaatga ttactcac atagatcag agagacacgg ctctgctt catggact ttaggggaaa  atgaagggc tcttgact agatgact cagaagcga aattctaga aatcaggt ctactgtag gcaatigaag tataaatat  ttataaca cttctctt tcatctac</p>	P	Homo sapiens
636	190955	Leukotriene B4 Receptor BLT1	NM_000752	<p>MGRVFLVFL AFCVWLTLPG AETQDSRGCA RWCPODSSCV NATACRNP  FSSFSEIIT PMETCDDINE CATLSKVS CG KFSDCWNTG SYDVCVCSGY  EPVSGAKTFK NESENTQDV DECOQNRLC KSYGTCVNTL GSYTCQCLPG  FKLKPEDPKL CTDVNECTSG QNPCHSSTHC LNNVGSYQCR CRPGWQPIPG  SPNGPNNTVC EDVDECSGQ HQCDSTVCF NTVGSYSRCR RPGWKPRHGI  PNNQKDTVCE DMTFTWTTP PGVHSQTLR FFDKVDLGR DYKPLANN  IQSILQALDE LLEAPGDLET LRLQQHCVA SHLLDGLDVLRLSKNLSN  GLLNFSYPAG TELSLEVQKQ VDRSVTLRQN QAVMQLDWNQ AQKSGDPGPS  VVGLVSIPIGM GKLLAEAPLV LEPEKQMLLH ETHQQLQDG SPILLSDVIS  AFLSNNDTQN LSSPVTFHS HRSVIPRQKV LCVFWEHGQN CGGHWATTGC  STIGTRDTST ICRTHLSF AVLMAHYDVQ EEDPVLTVIT YMGLSVSLLC  LLLAALTFLL CKAIQNTSTS LHLQLSLCLF LAHLLFLVAI DQTHGKVLCS  IIAGTLHYLY LATFTWMLE ALYLFTARN LTVVNYSSIN RFMKKLMFPV  GYGVPATVA ISAA SRPHLY GTPSRCWLQP EKGFHWGFLG PVCAIFS VNL  VLFLVTLWIL KNRLSSLNSE VSTLRNTRML AFKATAQLFI LGCTWCLGIL  QVGPAARVMA YLFTIINSLQ GVFI FLYCYL LSQQVREQYG KWSKGIRKLK  TESEMH TLSS SAKADTSKPS TVN</p> <p>gccattct cacatccgt gggcagga agccctct gaactgac ttacttct gctcgggtt ctcgccatt ttctatc  ctctgacagc tgcagggtca tctctctt ggtctct caagcagaac aagtggggc tctggaagg ttaaggacc  tcatggcca ccattact tgcattct cctgagaat gagaatgaa aggaagcag gaaggcccat ggtcagatg  aagggaaggc tttaggtt cttttttt tttagaat ggaagctg tctgcatc aggttgagt gcatgtgcat gattcagct  cactgagcc tccactct ggttccat gattctct ctcagcct ccaagtagt gacatcag gcaatgcca</p>	A	Homo sapiens



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 gagggaagga tgggcaaaag tgaaggccga gttgaagcgt gctccagctt ggtccacaca gggcagcttia accattaaa  
 ctgaagcttg aa

637	190955	Leukotriene B4 Receptor BLT1	NP_000743.1	MNTSSAAPP SLGVEFISLL AIILLSVALA VGLPGNSFVV WSLKRMQKR SVTALMVLNL ALADLAVLLT APFLHFLAQ GTWSFGLAGC RLCHYVCGVS MYASVLLITA MSLDRSLAVA RPFVSQKLRT KAMARRVLAT IWVLSFLAT PVLAYRTVVP WKTNMSLCFP RYPSEGHRAF HLIFEAVTGF LLPFLAVVAS YSDIGRRLLQA RFRRSRRRTG RLVLILTF AAFWLPHYVV NLAAGRALA GQAAGLGLVG KRLSLARNVL IALAFSLSSV NPVLYACAGG GLLSAGVGF VAKLLEGTGS EASSTRRGGS LGQARS GPA ALEPGPESL TASSPLKLINE LN atgatgccct ttggccacaa tataatlaa atttctgtg tgaaaaaa ctaggtcaaat gatgtccgtg ctccctgta cagttaatg	P	Homo sapiens
638	191039	Trace Amine	AF380185		A	Homo

639	Receptor 1 (TA1)	Trace Amine Receptor 1 (TA1)	AAK71236.1	191039	<p>gfgtcaiaa ttctgaccac actcgttggc aatctgaiaa ttatigtic laiaacac ticaaacaac ttataccoc aacaattigg cicattcatt ccatggccac tggtagacti ctctgggggt gctgggcat gctttacagat atggtagagat ctgctgagca cgttggtat ttggagaag tctctgtaa aaticacaca agcaccgaca ttatgtcgag ctacgctcc atttccatt tgtctttcat ctccattgac cgtctatag ctgtgtgtga tccactgaga tataaagcca agatgaatat ctggatatt tgtgtgata tctctatag ttggagtgtc cctgctgttt tgcatttgg aatgatcttt ctggagctaa acttcaaaag cgtctgaagag alatatata aacatgtca ctgcaagaaga ggtgtctgt tctcttttag caaataict ggggtactga cttttatgg tcttttat ataccgtgat ctattatgt atgtgtat tacagaatat atcttatgc taaagaacag gcaagattaa ttatgtatgc caatcagaag ctccaattg gattggaaaat gaaaaatgga attacaaa gcaagaagaag gaaagctgtg aagacattgg ggaatgtat gggagtttc ctatatgtc gggtggccctt cttaattgt acagtatgg accttttct tcaatatt attocactia ctttgaatga tgtgttggat tggtttggct acttgaact tacattat caaagggtt atgattttt ctatcttgg ttagaanaag cactgaagat gatgtgttt ggtaaaatt tccaaaaa tcatcagg tgaatatat tttagaat gattcatag</p> <p>MMPFCHNIIN ISCVKNNWSN DVRASLYSLM VLJIL.TTL.VG NLIVIVSISH FKQLHTPTNW LHSMATVDF LLGCLVMPYS MVRSAEHCWY FGEVFCIKHT STDMLSSAS IFHLSFISID RYAVCDPLR YKAKMNLVI CVMFISWSV PAVFAFGMIF LELNFKGAE IYKXHVHCRG GCSVFFSKIS GVLTFMTSFY IPGSIMLCVY YRIYIAKEQ ARLISDANQK LQIGLEMKNG ISQSKERKAV KTLGIVMGVF LICWCPFFIC TVMDPFLHYI IPPTLNDVLI WFGYLNSTFN PMVYAFFYPW FRKALKMMLF GKIFQKDSR CKLLELSL</p>	P	Homo sapiens
640	G Protein-Coupled Receptor 88 (GPR88)	NM_022049	191132	<p>gggttccaa tgcgaccaca ctctgtctc tggagacagg gctctctct ctgagctca gctttgatt ttgcagccaa gcatcttgc tgcctgtccc tgcctgtccc cccgctggg ctggcagccc gcaactttac ttcttcagg gcaactttac cctgatacca gctgagaagt ctccctgtcag ctgctgagtc ctgocaggga ccaatgtgtt ggaatgtgtt tggagtagagc ggggcaacttgc tctggcact gatccagct gattttctcc tgtgtattc tggagacatg atgtgtgtc tgaagtagata ttcttgga tccctccc tgaagacacc gctaaagacc agctaaagc caagtagaga cagtgtcagg atggaacggc ctgcaagaag ccgacagctag cgaaggtagagt gtagaagagt gggcagaatg accaactct cctccatc cactctcc accacgggtg gctcgtctgt cctgtctgtc gaggaaagag agtctgttggc gggccggggc atcccgggt cactctgta ttggggcctg gcaatcgggg gacagctggc caacgggcatg gtaactatc tctgtgtc ctccgaaag ctgcaagacca ccagcaacgc cttaattg aacggctgtc ccggcgacct cagcgtctgc gctctgtga tggcgtagga gggcgtgtctc ggggtctctgc ccacgggtctc tggggagccc cccgcagact ggggacgggc tggggggcagc taccgctgc tacgggtgtg gctctgtggc ctggtgactca cgggtctct cctctccac tgcctgttgg cctgtgaacg ctactgtctc atacccggg cggccggccac ctacacggcg ctgtaccaga gggccacac gggggggcatg ctggcgtgt cctgtggcgt cggccgtggc ctgctgtgtc tggccggcacc cggccggcg ccggccacc ggggaatcac taccggcg cgtctgtgtc tggcgtgtc tggcgtgtc tggcgtgtc gctgactgc taccgtggca tctgtggcg cgtgtgtgtc agcgtcaagc ggggtcaagct gctcaactc caactgtgc accagtgtcc cggcgtgtgc gggcgccgc cggccttcc gggggccagc cagcgtgtgc gggcggtgtc gggcggtgc cggggcagc cccagccctt gggccggcg ctgtcaacccg gggcgccagc gggcggtgtc agcgggtgtc cgggtgtgtc gctgtgtc gcttctgc tggccagca gcaactgtgt tgggtgaagc tggcagcggc ctctgtgtc ccgggtgtc gggggagga cggggcagc tggctctgt gctgtgtc gctgtgtc tggcgtgtc gggcggtgtc gggcggtgtc gatttccgc gcttccgtgc ctggtgtc cgggggtgtc ggggagcggc gggcggtgtc gggcggtgtc gggcggtgtc cggcgtgtc cggcggtgtc gggcggtgtc gggcggtgtc gggcggtgtc gggcggtgtc gggcggtgtc tcccggtgtc cggcggtgtc gggcggtgtc gggcggtgtc gggcggtgtc gggcggtgtc gggcggtgtc cgaagccccga tagatcgggg gaaatgggg ccttgcagcc cagcggggta cctgaacca gggcgtgtc tagatgggg</p>	A	Homo sapiens	

641	191132	G Protein- Coupled Receptor 88 (GPR88)	NP_071332.1	<p>gcccgaagtc atttggacg gccacocigat ttitaccctt tttttctctg ttttagagga altctaaggt caaaacacca gagacttgaa  gaacttgcaa actggcggtt taataataacc ggtaattta ttccacaca gtttggtt gaaaaagagc ttcataalg tataacccct  tccacttca tgccttata tatgaagcg cttagtgctg calgaacca aggaataaac attgaagaag gaaacaata  tgaagaaat atttagaaa gtaacctgta tttagalg cttcttcat catttgat ttgtatata ccttggggcca gtagagccct  agggtgccc accagtgatga gtgccaata agacctcaag ccccttatic taaagaagg tttaataaa gcttttcaaat aatgaggtgag  aatcttagcc agtgagaaa azaattatt ttatgctctt ttittctga ctttaagac tgaataagg cgttgaggtg tatagtgaaa  attttcagt ttgaatag atgtcaga ccagcactgg aatttgaaa acaataaagg tgattatcta tttaggtac cgtttcacat  ttttatgc atgcacact gtgtacccc tcatttgta accaattat ttgcttag aatgttggt cagcttgaa cacttgat  tgtaatggt gtaagaaga atagctctt cttgttct ttacactt aaaaatctc aatgcacalg atataataa acactataa  taccatgact gcalagctaa tatagctgc tatgcatgc tcttagalg tagaactat tgggcalgig gtaactgaa gcgatacccc  tagacaagg atatttact tcttcagac accagaagaa atggccttca attattgaa aagaagacaca gagacacctc tggclacclia  gagttctcc tgcctgacc aattatgag aagctccca gtgggact tatccaaa ggggaatcac agtcaagagc gatcaataat  atgggtggct cagcaagcc agctgtgctc tttagggt taacaagcc acacgttaga aagcaaacact gttttatgt agtcalata  tataccacg acatttaaca tcaattatgt atatgtgaa ggaagtataa taactcagt catalatgt gaacagtca aatgggaag  tgtttaaaa calattatt gaggtgic atattcact ttgttact aaattact agaatattt gaaatgcaaa attgttgtaa  atcacctat caaataaaa tgggaagaaa gtaatttaa taattttaa taatcatalg tcaactat gactactac cacatcaaat  ctggggccaa acagctcag taactgcat aattcaggaa caaaaccagc ttgtttgt gcacgccigg gcaatttcag  ccaggacatt agggaccatt gtgtacatc tgaataat tggagtgigg gacatgtaa ggaatacaaa tatgtcalt accaacaatc  agctgtcatt ttataatc atcccttgg tgcagcacc atttctct tactaacagt ttactgtt cacatttcc ttgaatcaa  tattaaagt cagaaaaaa aaaaaaaa aaaaaaaa aaaaaa</p>	P	Homo sapiens
642	191168	P2Y12 Platelet ADP Receptor	NM_022788	<p>MTNSSSTSTS STTGGSLLL CEEESWAGR RIPvSLLYSG LAIGGTLANG  MVYL VSSFR KLQTTSNFI VNGCAADLSV CAL WMPQEA V LGLLPTGSAE  PPADWDGAGG SYRLRGGLL GLGLTVSLLS HCL VALNRYL LITRAPATYQ  AL YQRRHTAG MLALS WALAL GLVLLPPWA PRPGAAPPRI HYPALLAAA  LLAQ TALLH CYLGIVRRVR VSKRVSVLN FHLHQLPGC AAAAAFPGA  QHAPGPGGAA HPAQAQPLPP ALHPRRAQRR LSGLSVLLC CVFLLATQPL  VWVSLASGFS LPVPWGVHAA SWLLCCALSA LNPLL YTW RN EEFRRSVRSV  LPGVGDAAA AVAATAVPV SQAQLGTRAA GQHW  ggctgcaata actactact actggalaca tcaaacct ccagaatcaa cagtatcag gtaaccaaa agaaatgcaa  ggcgtcgaca acctcactc tgcgcctggg aacaccagc tgtgcaccag agactacaa atcaccagg tcccttccc  actgctctac actgrocgt ttttttgg actatcaca aatggcctgg cgaagggat ttcttcaa atccggagta aatcaact  tattatttt cttaagaaca cagtcaatc tgaatctc atgattctga ctuicatt caaatctt agtgaigcca aactgggaac  aggaccactg agaaactttg tgtgtcaagt tactccgic atattttat tcaatgta tatcagtatt tcatctgg gactgataac  tatcagtc taccagaaga ccacaggcc atttaaaaa tcaacocca aaaaactctt gggggctaaag attctctg ttgtacttg  ggcaltcaltg ttctactct cttgocctaa calgattctg accaaccagg agccgagaga caagaalgig aagaatgct ctttcttaa  atcagaatc ggtctagct ggcagaaat agtaaatc atctgtcaag tcaattctg gataattc ttaattgta ttgaltgta  tactactatt acaaaagaac tgtaccgic atacgtaaga acgaggggig taggttaagt cccacaggaaa aaggigaacg  tcaaaattt cattatcatt gctgtattt ttattgtt ttttcttct catttggccc gaattctta caocctgagc caaacccggg  atgtcttga ctgcactgct gaaaalactc tttctatgt gaaagagagc actctgtggt taacttctt aatgtcagc ctggatcgt  tcatctatt ttctcttgc aagctcttca gaaatcctt gataalgat ctgaalgagc ccaattctg aactctctg tcccaggaca</p>	A	Homo sapiens

Homo  
sapiens

P

ataggaaaaa agaacaggat ggtggtagc caaatgaaga gactccatg taaacaatt aactaaggaa atatcaat  
ctcttggt tcaagactg ttaagcaaa gcgtaagta aaaaatataa ctagaagaaga agcaactaag ttaataataa tgaactaaa  
gaacagaag atacaagaag caatttcat ttactttcc agtaagaana gctatctaa aataagaaa actaatctaa actgtagctg  
tattagcgc aaacaaacg ac  
MQAVDNLNTSA PGNTSLCTRD YKIQVLFLP LYTVLFFVGL ITNGLAMRIF  
FQIRSKSNFI IFLKNTVISD LLMILTFPK ILSDAKLGTG PLRIFVCQVT SVIFYFTMYI  
SISFLGLTI DRYQKTRPF KTSNPKNLLG AKILSVVIWA FMFLSLPNM ILTNRQPRDK  
NVKKCSFLKS EFLVWHEIV NYICQVIFWI NFLIVIVCYT LITKELYRSY  
VRTRGVGKVP RKKNVVKVFI IIAVFFICFV PFHEARIPYT LSQTRDVFDC  
TAENTLFYVK ESTLWLTSLN ACLDPFIYFF LCKSFRNSLI SMLKCPNSAT  
SLSQDNRKKE QDGGDPNEET PM

643 191168 P2Y12 Platelet  
ADP Receptor NP\_073625.1

Homo  
sapiens

A

atgggaata atttccca agctgaggct gtgagcgtg gttacaagaa cgtgaacgaa tctlgcattia aaactcctta  
ctgcagagt cctcgatcta tctctacgc cgtccttggt ttggggcig tgcggcagc gttggaaac ttactggca tgaatgctat  
cctcaatc aaacaaatgc acacacctac aaacttucig atlgcgtgc tggcctgctg tgaacttctg gtgggagca cgtgatgcc  
ctcagcaca gtgaggtcgt tggagagcgt ttggtactt tgggacaggt actgaatc ccatatcgt ttgacacat cctctgtt  
tgcctcttia ttcatatt gctgctc tctgtaga tacattgctg ttactgatc tctgatcc ccaaccaagt ttactgtgic  
agttcaggg atatgcatg ttcttctgt gttcttct gtcacata gctttcacg tctgacacg gtagccaaag aagaaggat  
tgaggaaata gtatgtct taactgtt agggagcgc caggctccac tgaatcaaa ctaggtccta ctgttttct tctatctt  
tataccaat gtcgcatgg tttatata cagtaagata ttgtgtgg ccaagcatca ggttaggaag atagaaagta  
cagccagcca agctcagtc tctcagaga gttacaagga aagagtagca aaaaagaga gaaaggcgc caaaacctg  
ggaatgcta tggcagcat tctgtct tggctacat acctgtg tgcagtgat gtagctata tgaatttat aactctct  
tatgttiatg agattttagt ttggtgtt taitaata cagctatgaa cccctgtat tgccttct ttaccaatg gtttgggaag  
gcaataaac ttatgaag cggcaagtc tgaagcgt atcgtcaac aactaatta ttctgaag aagtagagac agattaa  
MVNFSQAEA VELCYKNVNE SCIKTPSPG PRSILYAVLG FGAVLAAGFN  
LLVMAILHF KQLHTPTNFI IASLACADFL VGVTVMPFST VRSVESCWYF  
GDSYCKFHTC FDTSCFASL FHLCCISVDR YIAVTDPLTY PTKFTVSVSG ICIVLSWFFS  
VTYSFSIFYT GANEEGIEEL VVALTCVGGC QAPLNQNWVL LCFLFFIPN  
VAMVFYSKI FLVAKHQARK IESTASQAQS SSESYSKERV A KRERKAAKTL  
GIAMAAFLVS WLPYLVDVI DAYMNFITPP YVVEILVWCV YVNSAMNPLI  
YAFFYQWFGK AKLIVSGK V LRTDSSSTNL FSEEVETD

Homo  
sapiens

P

645 191193 Trace Amine  
Receptor 3 (TA3) AAK71240.1

Homo  
sapiens

A

atgaatgagc cactagata tttagcaaat gcttcgat tcccgatta tgcagctgt ttggaatt gcaatgata aaacalcca  
ctcaagatgc actactccc tgtattat ggcatatt tctctggtg atttcaggc aatgcagtag tgaatcac ttactttt  
aaaatgagac cttagaagag cagcaccalc attatgctga acctggcgt cagatctg cgtatctga ccagctccc  
ctcttgatt cactactatg ccagtggega aaactggalc ttggagatt tcaatgtaa gttatccg ttatccgc atttcaact  
gtatgagcgc atctcttcc ttactgtt cagcalctc cgtactg tgcattca cccaatgagc tgccttcca ttcaaaaaac  
tcgatgca gttagacct gtctgtgt gttagcatt tcactgtgag cgtcctcc gtagccttc ttgacat caaccaacag  
gaccaacaga tcaagcctgc tcaagcctac cagtcggat gaactcaata cttaaatg ttgaacccg attttagct caacttct  
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gaaagcagca aggttaacca ttctgtact ctgcatt ttactgt ttactctt ccaatctt aggtcattc gtagcgaac  
tgcctgtct tcaatcagtt gttaacatga gaatcagalc catgaagctt acatgctt tagaccattia gctgctctga acacttgg

646 191196 G Protein-  
Coupled Receptor  
GPR80 AF411109

647	191196	G Protein-Coupled Receptor GPR80	CAC51133.1	<p>taacctgttta ctatatgttg tggcagcga caacttcag caggctgtct gctcaacagt gagatgcaaa gtaagcggga  acctgagca agcaagaata attagtact caaacaacc ttga  MNEPLDYLAN ASDFPDYAAA FGNCTDENIP LKMHYLPVY GIIFLVGFPG  NAVVISITYF KMRPWKSSSTI IMLNLACTIDL LYLTSPLFI HYYASGENWI  FGDFMCKFIR FSHFNLYSS ILFLTCSIF RYCVIHPMS CFSHKTRCA VVACAVVWII  SLVAVPMTF LITSTNRITNR SACDLTSSD ELNLIKWYNL ILTATTFCLP LVIVTLCYTT  IIHTLTHGLQ TDSCLKQKAR RLTIILLAF YVCFLPFIL RVIRIESRL SISCSENQI  HEAYVSGPL AALNTFGNLL LYVVVSDNFQ QAVCSTVRCK VSGNLEQAKK ISYNNP  tccctggccc taataaatg actaatc tcaagctc tgaattc tctgtaaaa caggggcgt aattaccata taacaggctg  gtaagaaaa tcaagtaaca tgcagcaggt gctcaagct tgttttgt tccaggggca ccaagtggagg ttcttgagc atggatocaa  ccacccggc cgggggaaca gaaagiaca caagaaagg aaligacca gccccttc tgcctggc cagggagacc  ctgatccgg tcttctgat cctttcatt gcccgtg ggcgtgagg aaacgggtt ggcctggc tccctggc cgcgatgccc  aggaaagcct tctctgcta cgtctcagc cggccgggg cgcacttct cttctctgc ttccagatta taaattgctt ggcgtaccc  agttaactct tctgttccat tccatcaat ttccctagt tcttccacc tggatgacc tggcttacc ttgcaggcct gagcaltgctg  agcaccgtca gcaaccagcg ctcctgtcc gtcctgtggc ccatgtgga tgcctggcgc ggcocccagac acctgtcagc  ggctgtgtgt gtcctgtct gggccctgtc cctactgtc agcaltgag aagggaagt cgtggcttc ttatttgatg atgggtgactc  tgggtgtgt cagacattg attatcac tgcagcgtgg cgtatttt taltcaltg tctctgtgg tccagtctgg cccgtcgtgt  caggatctc tgggttcca ggggtgccc actgaccagg cgtacactga ccatctgt caccgtgctg ggttctcc  tctggcgtt gcccgtggc attcaggtt tctaatatt atggactgg aaggacttg atgtctatt tgtctatt catcagtt  cagttgtct gtcactct aacagcgtg ccaacccat cattactc ttcgtggct ctttaggaa gcaagtggcg ctcagcagc  cgtactcaa gctggctc cagagggtc tgcaggacat tgcagggtg gatacagtg aaggaltgt cccgtcaggcg  accocggaga tgcagagaag cagctgtgtg tagaatgga cagccctac ttccataga tatatgtggc tttagagcc  aacttgccc cgtcgtct gattgtga acttctcag tctgattt aaacagta agagagctt tggaggatt aagttagaca  MDPTTPAWGT ESTTVNGNDQ ALLLCGKET LIPVFLIFI ALVGLVGNF  VLWLLGFRMR RNAFSVYVLS LAGADFLC FQINCLVYL SNFFCSISIN  FPSFTTVM T CAYLAGLSML STVSTERCLS VLWPIWYRCR RPRHLSAVVC  VLLWALSLL SILEGKFCGF LFSDDSGWC QTDFTTAAW LIFLFWLVC  SSLALLVRIL CGSRGLPLTR LYLTIILLTVL VFLLCGLPFG IQWFLILWV KDSDVLFCHI  HPVSVVLSL NSSANPIYF FVGSFRKQWR LQQPILKLAL QRALQDIAEV  DHSEGCFRQG IPMSRSSLV</p>	P	Homo sapiens
648	191218	MrgX2 G Protein-Coupled Receptor	AY042214	<p>actatatt gacatttt ttcaaggca agtttagat acactgtgg cattttccct gcatatgtt gcaaatgctt ggcctgaag  atcttgtt ttctggcagg ttgcagactt gccactagag cttgggattgg tcatgtgac atggccgtc atggagcca gfgaagcagg  actcaggcca atgctgtca cactatgga agaatatc tgaatcat tgaagaaagg agactttgt ttaattct gcttaacaat  aataacatag catttgggga tgaatgtca atacaggat ccaatgttag alattaat gacaalaic tccacagctg gtacatatt  gccaaatgt gtagcataga tagggatga tggatccaa gctatgaat aatgagcat gccaaatga atgaattgg  cttcattga attctcat ttgccttga aagcaaatat gaagcaaat aaggccaggga tggcaatga gccacagatg  gtgccaaatg caagtatga tcccttca cactcaggga tgaatgactt gggcaaggag acattacct ctacagtagg  tgcgtcaag attagcaga gttgcaaat gacaacctg atgcccgtg aggtgagat aataaggatc ggtctataga  ggcacttcag aaatttctt aatttggat caaagctgaa ggctagcaaa atttccagag acttcgtcaa aatgcaggag  atgcaagag taaagctcac tcaaacatt gtcgtcctgg tttaatgt gaagtctgt ggttctcaa tgaanaagct cgtgctggca</p>	A	Homo sapiens

651	191222	G Protein- Coupled Receptor Ls191222	ENSP00000199 719	aaatgagga aatgacagag aaggatcaca tagcagacac ttaatccccc ggaatgattc acaacaggig tgitcagggt tcttgaaat ataatgcaa caaccagaac aaatatgatt ccagtaggg agagaatcag gagtaggatg gocaaggagt cattccaggt gagatattcc acttcttiti caaagcacat agtgcctcta acagggggcc agtagtiti gttgtgcat aaaggcagt gaggcatatc t	P	Homo sapiens
652	193511	EGF-Like Module- Containing Mucin-Like Receptor EMR3	NM_032571	QTLAMIHSIE MINNSTLLPG VKLGYEYDIT CTEVTVAMAA TLRLSKFNC SRETVEFKCD YSSYMPRVKA VIGSGYSEIT MAVSRMLNLQ LMPQVGYEST AEILSDKIRF PSFLRTVPSD FHQKAMAH L IQKSGWNWIG IITDDDDYGR LALNTFIQA EANNVCI AFK EVLPAFLSDN TIEVRINRTL KKILEAQVN VIVFLRQFH VFDLFNK AIE MNINKMWIAS DNWSTATKIT TIPNVKKIGK VVGFAFRNGN ISSFHSFLQN LHLLPSDSHK LLHEYAMHLS ACAYVKDITDL RLHISQLAV FALGYAIRDL COARDCQNPN AFQWELLGV LKNVTFIDGW NSFHDAHGD LNTGYDVVLW KEINGHMTVT KMAEYDLQND VFIPDQETK NEFRNLKQIQ SKCSKECSPG QMKKTTRSQH ICCYECQNCPE NHYTNQTDMPHCLLCNNKT HWAPVRSTMC FEKEVEYLNW NDSLAILLI LSLGIFVL VVGIFTRNL NTPVVKSSGG LRVCYVILLC HFLNFASTSF FIGEPQDFTC KTRQTMFGVS FTLCISCLT KSKILLAFS FDPKLQKFLK CLYRPILJIF TCTGIQVVIC TLWLFAAPT VEVNVS LPRV ILECEEGSI LAFGTM LGYI AILAFICFIF AFKGGKYENYN EAKFITFGML IYFIAWITFI PIYATTFGKY VPAVEIIVIL ISNYGILYCT FIPKCYVIC KQINTKSAF LKMIYSYSSH SVSSI ttttgagc taggaaggt gttggctta cggcagcagta gagagcttcc agggctgggt gggcggggat acccgtaacca cagaatagca gggaccattg cttctccag gcctctgcti tctgtgagc cttctggag cgtgactca gaaacacaa acttctgtg ctaaggccc cccaatgct tctgtgctca ataacactca cggcactgc aacactggat atactctgg atctggggcag aaacttca cattccctti ggaagacatg aacgacatta atgaatgac accacactat agtggatit gggatitaa cgtgtgtgt tacaatgctg aagggaagtt ctactgcaa tgtgtccag gatatagact gcaatctggg aatgaacaaat tcaataatc caatgagaac accgttcagg acacaactc ctcaagaca accgaggggca ggaagagct gcaaaagatt gggacaaat ttgagtcact tctaccaat cagacttat ggaagacaga agggagacaa gaaatctcat ccacagctac cactatttc cgggagtggt aatcgaaaat tctagaaat gccttgaaag atccagaaca aaaggtcgtg aaatccaaa acgatagtgt agctattgaa actcaagcga ttacagacaa ttgtctgaa gaaagaaaga cattcaacti gaacgtccaa atgaactcaa tggacatcog ttgcagtgac atcatccagg gagacacaca aggtccaggt gccattgcti ttatctcata ttcttctti ggaacacaa taaatgcaac ttttttgaa gagatgggata agaaagatca agtggatctg aactctcagg ttgtgagtg cgtgattgga ccaaaaagga acgtgtcti ctccaagcti gtagcgtctg cttccagca cgtgaagatg accccagta ccaaaaaggt cttctgtg tactgggaaga gcaaggggca gggcagccag tgggtccagg atgggtcgtcti cctgatacac gigaacaaaga gtcacacat gttgaatg agtcaccti ccagcttgc tgtcttgatg gccctgacca gccaggggga ggaatccgtg cgtactgca tcaactagt ggggcgtgag gttctctgc tgtgtctct cctggcgcc cttacttgc tctgtgtaa agccatccag aacaccagca cctcactgca tctgagctc tctgtctg tctcttggc caactctc tctctgtg ggaatgag aactgaacc aagggtgctg gttccatcat cggcgggt tttgactat tcaactgac tcaactgac cgtctcacc tggatgctg tggagggtg gcaacttct ctcacgac ggaaactgac agtgggtaac tactcaagca tcaatgact calgaagtg atcaatgac cagtcgggta tggcgttcc gctgtgactg tggccattc tgcagctcc tggcctcacc ttatggaaac tgtgtgac tgtgtgct accgtggacca gggattcag tgggttcc tggccagt cgtgtccatt tttctgtcga attagtati gttattctg gtttttga ttttgaag aaaacttcc tccctcaata gtagagtg aacatccag aacacagga tgcgtgctt caaagcaaca gctcagct tcatctgggg ctagcagatg tgtctgggt tgtacaggt ggggtccaggt tggccttact cttacacatc	A	Homo sapiens

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P

NP\_115960.1

EGF-Like  
Module-  
Containing  
Mucin-Like  
Receptor EMR3

653

atcaacagcc tccaaggctt ctatcttct ttggcttact gctctctcag ccagcaggct cagaacaat atcaaaagt  
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NLNVQMNSMD IRCSDIQGD TQGPSAIAFI SYSSLGNIIN ATFFEEMDKK  
DQVYLSQVV SAAIGPKRNV SLKSVLTF QHVKMTPTSK KVFVYWKST  
GQGSQWSRDG CFLIHVNKSH TMCNCSHLSS FAVLMALTSQ EEDPVLTVIT  
YVGLSVSLLC LLLAALTFL CKAJQNTSTS LHLQSLCLF LAHLLFLVGI  
DRTEPKVLCS IIAGALHYLY LAAFTWMLLE GVHFLTARN LTVVNYSSIN  
RLMKWIMFPV GYGVPATVA ISAAASWPHLY GTADRCWLHL DQGFMSWFLG  
PVCALFSANL VLFILVFIL KRKLSLNSSE VSTQNTTML AFKATAQLFI  
LGCTWCLGLL QVGPAAQVMA YLFTIINSLQ GFFILVYCL LSQQVQKQYQ  
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agtacaacia ccagagcgtg gtagggagga atgagggc agggcaccg gtagtcagc tgggtgctca ggagccggac  
ggcgggcg ccggggcgct agtctactc gtagggcgac tcatgaacag ccgtctgct gtagctgttca gcatcgacc

Homo sapiens

P

CAC21687.1

G Protein-  
Coupled Receptor  
dJ402H5.1

654

Homo sapiens

A

NM\_001407

Cadherin EGF  
LAG Seven-Pass  
G-Type Receptor  
3 (CELSR3)

655

[illegible]







656	193524	Cadherin EGF LAG Seven-Pass G-Type Receptor 3 (CELSR3)	NP_001398.1	<p>gcaaggag cagaacaag ggaattcaag accagaatg tagtggccac tgcctctat gttacagga tctccgtgg ccctaggcac ctggctgca ggaagtgaact ccgttccact cctctttat tccctaaaa agggaaaaat gactgtiacg accctgtca caaaactct acttttgta ttgttctgc tgcacagaac tgaagactt aaaaatttgt tactgtttac aagtcacgat tcaaaaaatg ttttacttt gtttacaact caaaacttg agttttacac ttgtttaca ccttgaccig gccatcttga ggggtttct tgaagggtag ggaagggtg agaggagact ggaggacca ccttgaggga ccttgaggga agacttgag agtaggcgc aacccacagg tctccaggc cgaagggtcag ccttgagtc cgtttaacag cagatcacaga agacttgag agtaggcgc cttaaccac gggggagagt ggctgtgagc ggctggggg tggctgtgc agacacctc tcaocacca cccatgat actttggga agcagcttc tgggagatta gaaattctac ttccctgact ggagctaaat ccaaccagcc aggaccacaa ctctcttac cgaagaaggac cccagctctt gaagggtga gggcctgct ggggggtgga ggggtgctt actatgctt agggttgta gaggccctc tctgggttc cctctctca gccacgggc cctcttctt gctgtgttaa atgtccgt gaagccggc tctgtttgg gaataaact ctalagaaa caaaa</p> <p>MMARRPPWRG LGERSTPILL LLLSLFPLS QEELGGGGHQ GWDPLAATT GPAHIGGGA LALCPSSGV REDGGPGLGV REPfVGLRG RRQSARNSRG PPEQNEELG IEHGVQPLGS RERETGQPG SVLYWRPEVS SCGRTGPLQR GSLSPGALSS GVPGSGNSSP LPSDFLRHH GPKPVSSQRN AGTGSRRVVG TARCCGELWA TGSKGQGERA TTSGAERTAP RRNCLPGASG SGPELDSAPR TARTAPASGS APRESRTAPE PAKRMRSRG LFRCRFLPQR PGRPPGLPA RPEARVTSR NRARFRAAN RHPQFPQYNY QTLVPENEA GTA VLRVVAQ DPDAGEAGRL VYSLAALMNS RSELEFSIDP QSGLRTAAA LDRESMERHY LRVTAQDHGS PRLSATTMVA VTVADRNDHS PVFEQAQYRE TLRENVEEGY PILQLRATDG DAPPNANLRY RFVGPAAARA AAAAAFEIDP RSLGISTSGR VDREHMESEY LVVEASDQOQ EPGRSATVR VHTVLDEND NAPQFSEKRY VAQVREDVRP HTVVLVRTAT DRDKDANGLV HYNISGNSR GHFAIDSLTG EIQVVAPLDF EAEREYALRI RAQDAGRPPPL SNNTGLASIQ VVDINDHIPI FVSTPFQVSV LENAPLGHSV IHQAVDADH GENARLEYSL TGVA PDTFV INSATGWVSV SGPLDRESVE HYFFGVEARD HGSPPLSASA SVTVTVLDVN DNRPEFTMKE YHLRLNEDAA VGTSVVSVTA VDRDANSALS YQITGGNTRN RFAISTQGGV GLVTLALPLD YKQERYFKLV LTASDRALHD HCYVHINITD ANTHRPVFQS AHYSVSVNED RPMGSTIVVI SASDDDVGEN ARITYLLEDN LPQFRIDADS GAILQAPLD YEDQVTYTLA ITARDNGIPQ KADTTYVEVM VNDVNDNAPQ FVASHYTGLV SEDAPPFTSV LQISATDRDA HANGRVQYTF QNGEDGDGDF TIEPTSGIVR TVRRLDREAV SVYELTAYAV DRGVPLRTP VSIQVMVQDV NDNAPVFPAAE EFEVRVKENS IVGSVVAQIT AVDPDEGPNH HIMYQIVEGN IPELFQMDIF SGELTALIDL DYEAREQYVI VVQATSAPLV SRATVHVRLV DQNDNSPVLN NFQILFNYYV SNRSDTFPSG IIGRIPAYDP DVSDHLFYSF ERGNELQLLV VNQTSSELRL SRKLDNNRPL VASMLVTVID GLHSVTAQC LRVVIITEEL LANSLTVRLE NMWQERFLSP LLGRFLEGVA AVLATPAEDV FIFNIQNDTD VGGTVLNVSF SALAPRGAGA GAAGPWFSE ELQEQLYVRR AALAAARSLD VLPFDDNVCL REPCENYMKC VSVLREDSA PFLASASTLF RPIQPIAGLR CRCPPGFTGD FCETELDLCT SNPCRNGGAC ARREGGYTCV</p>	P	Homo sapiens
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DTEAGRCV PGVCRNGGTC TDAPNGGRC QCPAGAFEG		
SSFVMFRG LRQRHFLTLS LSFATVQQSG LLFYNGRLNE		
QVRLTYST GESNTVVSPT VPGGLSDGQW HTVHLRYYNK		
PSKDKVAVL SVDDCDVA VA LQGAIEGNY SCAAAGVQTS		
LGGVNLPE NFPVSHKDF IGCMDLHID GRRVDMAAFV		
KLHFCDSGP CKNSGFCSE WGSFCDPCV GFGKDCQLT		
TLSWNFGSD MAVSPWYLG LAFRTRATQG VLMQVQAGPH		
SVTVTRGS GRASHLLLDQ VTVSDGRWHD LRLEQEEPG		
LDFSLFQDT MAVGSELQGL KVKQLHVGG LPPGSAEEAPQ		
GSTPSGSPA LLPPSHRVNA EPGCVVTNAC ASGPCPPHAD		
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RMDQQCPRG WWGSPTCGPC NCDVHKGFDP NCNKTNGQCH		
SCLPCDCY PVGSTSRSCA PHSGQPCRP GALGRQCNSC		
RVL YDACP KSLRSGVWWP QTKFGVLATV PCPRGALGAA		
EPDLFNCTS PAFRELSLL DGLELNKTAL DTMEAKKLAQ		
YFSQDVRVT ARLLAHLAF ESHQQGFGLT ATQDAHFNEN		
TGDLWAAL QORAPGGSPG SAGLVHLEE YAATLARNME		
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SPSEVLPT SSSIENSTTS SVVPPAPPE PEPGISIHL LVYRITLGILL		
RLPQNPMN SPVSVAVFH GRNFLRGILE SPISLEFRLL		
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VEPRNVDRG AMRFYHALGW GVPAVLLGLA VGLDPEGYGN		
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SERLLTHP KDVDGNDLLS YWPALGECEA APCALQTWGS		
ANNQPD P ALTSGDETS L GRAQRQKGI LKNRLQYPLV		
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ERLEEAPA PVLRLSRPG SQECMDAAPG RLEPKDRGST		
JAMAGRGS RDALDLGAPR EWLSTLPPPR RTRDLDPQPP		
DPLPSRP LDSLSRSSNS REQLDQVPSR HPSREALGPL PQLLRAREDS		
LDLSSIL ASFNSSALSS VQSSSTPLGP HTTATPSATA SVLGPSTPRS		
EVPRSEG HS		
cca gccctccaac agcagttggc ccctaagta gaatggagc aacactgagg ccacccggc	A	Homo sapiens
l cctactatca gcacacctcc cctgtggcg ccaigtcat tggcctcat tctgtcttg		
tgg tctgttcat cgtgtctcaag aaccggcaca tgcatactg caccacaatg tcatctca		

658	193914	Neuropeptide FF 1 Receptor	NP_071429.1	<p>accaggctgt cagtgacctg ctggggggga tctctgcat gccaccacc ctgtgggaca accatcatc tgggtggccc  tgcgacaatg ccacatgcaa gtagagcggc tgggtgcagg gcatgtctgt gtcggcttcc gttttcac tgggtggccat  tgcgtgggaa aggttccgtg gcatgtgca cctttccg gaggagctga cctgtgggaa ggcgtctgt accatggccg  tcatgggc cctggcgtg ctacatgt gtccctggc cgtcacgtg accgttacc gtagagagca ccacttcatg  gtgacggcc gcaacgcctc ctacccttc tactctgt gtagagcctg gcccagagaa ggcattgcga ggtgtctacac  cactgtctc tctgcaca tctactggc gccgtctggc ctagctgtg tcatgtacg ccgcatcgcg cgtcaagctct  ggcaggccccc ggcccgggcc cccggggggc agtagggctgc ggaacccgga gcatcgcgcc gcaagagcggc cgtgtgacac  atgctgggca tgggtggcgt gttttcacg ctgtctggc tgcggctctg ggcgtctgt ctgtctatcg actacgggca  gctcagcgcg ccgagctgc accgtgtcac cgtctacgccc ttccccttg cgcactggct ggccttttc aacagcagcg  ccaacccat calctacggc tactcaacg agaacttccg ccggcgcttc caggccggct tccggcgccc cctctggcccg  cgccgttcgg gtagccacaa gtagggctac tccgagcgcc ccggcgggct tctgcacagg cgggtcttcg tgggtgtgctg  ggcagcgac tccgggctgc cctctgagc gggccctagc agtggggccc ccaggcccg ccgcttcccg ctcgggaaag  ggcggggcgc taccacggc ttgccagg gaggcgctg cgtctccac cgtcccca ccattcagc cttgggatac tga  MEGEPSPN SSWPLSQNGT NTEATPATNL TFSYYQHTS PVAAMFIVAY  ALIFLLCMVG NTL VCFVLK NRHMTVTNM FILNLAVSDL LVGFCMPTT  LVDNLITGWP FDNATCKMSG LVQGMVSAS VFTLVAIA VE RFRCIVHPFR  EKLTLRKALV TIAVIWALAL LIMCPSA VTL TVTREHHFM VDARNRSPYL  YSCWEAWPEK GMRRVYTVL FSHYLAPLA LIVVMYARIA RKLQAPGPA  PGGEEAADPR ASRRRARVVH MLVMVALFFT LSWLPLWALL LLIDYGQLSA  POLHLVTYYA FPFHWLAF NSSANPIYG YFNENFRRGF QAAFRARLCP  RPSGSHKEY SERPGGLLHR RVFVVVRPSD SCLPSESGPS SCAPRPGRLP  LRNGRVAHHG LPREGPGCSH LPLTIPAWDI</p>	P	Homo sapiens
659	194319	G Protein- Coupled Receptor FLJ22684	NM_025048	<p>agatactgat actttctt caacagcat aagaagtgt tgaagccaca gatactgaa ggaaggcgct cctcagttg  tgggtggaag agataaata ccagtcacag actatgcacc cgcctgtgc tgttcagctc aggggaaaa gaaagtggag  tgcgtggct cattttc ttacattca ctagcgccca cgggtgcca cgggtgctc tgggggaaaa atgatgacat caaacaaaa  aaagaaacta ttgtgaataa gaaaaaacat ctaggccagc tgaagaata ttagctgtc cttcagggtga cctatagaga  ttccaaggag aaagagagatt tgaagaatt tctgaagctc ttgaagctc cattattg gtcacatggg ctaattgaa ttatcagagc  aaaggctacc acagactgca acagcctgaa tgggtctctg caggttact gtagagacag ctacacctg ttctccct  cagcttga tcccgagac tctacttc acagcctg agcactcca agctgtgaaat gtcactca caacctcagc  cagagtgca attctgtga gagaacaaag atttggggca cttcaaat taatgaaagg ttacaaatg accittgaa ttacttct  gctatatac ccaaatatgc aaatggaatt gaattcaac ttaaaaaagc atatgaaaga atcaagggt ttgagtcggg tcaaggcacc  caatttcgaa tgcactct gtcgccaag tggagtgca atggcacaat ctaggctcac tgaacctg caacctcgc  ctacgggt caagagatt ccttgccca gctcccaag tagtggaaat tagggcacc tgcaccaca tccagctaac ttttttga  tttttag agacagggt tcaatgt ggccacatg gttcaact cctgacctc ggtgtatccg cgtctcggc  ccccaaatg cttgggttac aggcattgac caccacatc ggcctaggac cttaaat ttgaagcalt ctcaaacatg  tgggtcagtg agtagaacta caaacaaata gcaatagggc agaaactga aagagagcag gtagatcagg tgaagtgga  tgggaaaaag tgaagggttgg gataagggt tgggggtgt cgaagggtg attttctc tcaagcaacta caggagat  gatgctcat aattggagc cagaagtggt gcttgggtg agatatctt gcaagataa catgtatata tcatgtca  aaaccagta gcatgttt acagcaata aagaataatt tagtaattt aaaaaaaaa aaaaaaaaa aaaaaaaaa  aaaaaaaaaa aaa</p>	A	Homo sapiens

[illegible]

664	194743	FLJ14454	NP_116176.1			<p>aatcaacttga calattalcc aacgttggat gtgcacatgic tgttactgtgt ctagctctca cagttaatt tcatgattgc accaggaag  tcaaaaaac ctacgttaacc tgggttttgg tcaatctgt cataatggt ttgatattca accctctt tggtttggga attgaaat  ccaataagaa ctgcagaca agtgaagggt acaatataa tatgatctt gacaataatg acataccag gacagacacc  attacatcc cgaatccat gtgcactggt atgcgcctt tactgacata ttcttgata ccttggaacgc acicagcgt  gcacagctct attactctt aataaggacc atgaagccic ttccctggca ttatctt ttcatctat taatiggatg gggagltccca  gctatagtag tggctataac agtggggagt attatctc agaatggaaa taatccacag tgggaattag actaccggca  agagaaaaic tctggctgg caatccaga accaatggt gttataaaa gtccgctgt gtggctatic atcgtacctg taaccattt  cccatcagc aatgtgtta tgttatatc aatctgac aaagtctgt ggaagataaa cagaacctg acaagcaca aaaaagttic  atccatgaag aagatgtta gcacattatc tgttgcagt gttttgaa ttactggat ttagctacat ctagcttag ttaatgatga  tagcatcagg atcgtctca gctacatatt ctagctttic aacatacac agggatgca aattttalc ctgtacatg ttagaacaaa  agcttccag agtgaagctt ccaaggtt gattgtgcta tctgtatg ggaagaggaa gcatlgcct tcatgacgc  ggccgaggct gcgtgtaag atgataatt tccicaggic atggccaac ttacatgaac gctttaggct actggaaacc  tctccagta ctgaggaaat cacactctt cctcttatt tccagctct ctagaaagt ctctcaat gtttttgc taggattaag  aatccctcg ttgagttt atctgtttt tcttatt tggcatalat tggacttgga gttttctat tttaalag attgtact gaataagggt  aattagataa aacctgtgt ttatttat tggcatalat tggacttgga gttttctat tttaalag attgtact gaataagggt  aagaattca cacaacatc aagatgaca ttgttctta tatgttaaa tctgtgac aacttgac aaaaatgtag aacctatac  aaattcttt acaagtact ataaaggaca caaagagaaa actttaccti cagaacaaa atgactctg atgaacagtg tgggggatt  tgcgtgatg tatataact ttagctctg  MASCRAWNLR VLAVVCGLL TGILGLGIW RIVRIQRGK STSSSTPTE  FCRNGGTWEN GRICITEWK GLRCTIANFC ENSTYMGFTF ARIPVGRYGP  SLQTCGKDTN NAGNPMVRL CSLSYGEIE LQKVTIGNCN ENLETLEKQV  EDVTAPLNNI SSEVQILTSD ANKLTAEIT SATRVVGQIF NTSRNASPEA  KKVAIVTVSQ LLDASEDAFQ RVAATANDDA LTTLIEQMET YSLGNQSV  VEPNIAQSA NFSENAVGP SNVRFSVQKG ASSSLVSSST FHTNVVDGLN  PDAQTELQVL LNMTKNYTKT CGFVVYQNDK LFQSKTFTAK SDFSQKIIS  KTDENEQDQS ASVDMVFSKP YNQKEFQLYS YACVYWNLSA KDWDITYGCQK  DKGTDGLRC RCNHTTNFAV LMTFKKDYQY PKSLDILSNV GCALSVTGLA  LTVIFQIVTR KVRKTSVTWV LVNLCISMLI FNLLFVFGIE NSKNLQTS  GDINNIDFDN NDIPRTDTIN IPNPMCTAIA ALLHYFLLVT FTWNALSAAQ  LYLLLRMTK PLPRHFLFI SLIGWGPVPI VVAITVGVIY SQNGNNPQWE  LDYRQEKICW LAIPEPNGVI KSPLLWSFV PVTILISNV VMFITISIKV LWKNNQNLS  TKKVSSMKKI VSTLSVAVVF GITWILAYLM LVNDDSRIV FSYFCLFNT TQGLQIFILY  TVRTKVQFQSE ASKVLMLSS IGRKSLPSV TRPRLRVKMY NFLRSLPLTH  ERFRLLETSP STEEITLSES DNAKESI  cgccgcccg cagggtgc gaggacca cgtctctaa aagagcaga cgcacccgat gctcgattg gatgaatgc  aaagcttaa tccctggaaa gggcagcaac aatgaatcca ttatgcat ctgttgga cactctgcc gaactttaa acaatccig  gaataaagag ttgctatc aaactgccag tgggttgat acagatcc tccctccat gatgggatt atctgtcaa cagggtcgtgt  tggcaacalc ccatglat tcaataat aagatccagg aaaaaacag tccctgacat ctatctgc aactggcgtg tggctgatt  ggccacata gttggaatg cttttctat tcaccaatgg gcccgagggg ggaagtggtgt gttggggggg cctctctgca  ccatcatcac atccctggat actgttaacc aattgtctg tagtgccalc atgactgtga tagtggtgga caggatctt gccctgccc</p>	P	Homo sapiens
665	194745	G Protein-Coupled Receptor SLT/MCH2	NM_032503			<p>cgccgcccg cagggtgc gaggacca cgtctctaa aagagcaga cgcacccgat gctcgattg gatgaatgc  aaagcttaa tccctggaaa gggcagcaac aatgaatcca ttatgcat ctgttgga cactctgcc gaactttaa acaatccig  gaataaagag ttgctatc aaactgccag tgggttgat acagatcc tccctccat gatgggatt atctgtcaa cagggtcgtgt  tggcaacalc ccatglat tcaataat aagatccagg aaaaaacag tccctgacat ctatctgc aactggcgtg tggctgatt  ggccacata gttggaatg cttttctat tcaccaatgg gcccgagggg ggaagtggtgt gttggggggg cctctctgca  ccatcatcac atccctggat actgttaacc aattgtctg tagtgccalc atgactgtga tagtggtgga caggatctt gccctgccc</p>	A	Homo sapiens

666	194745	G Protein- Coupled Receptor SLT/MCH2	NP_115892.1	<p>aaccatttcg actgacacgt tggagaacaa ggtaaacag catccggatc aatttggcc ttggggcagc ttctttatc  ciggcattgc ctgtctgggt ctactgaag gtaacaaat ttaagacagg tttgagaggt tttgtcttgg atttgacatc ccttgacgat  gtactctgtt atacacttta ttgacgata acaactttt ttctccctt acccttggat ttgggtgct atatttaat ttatgctat  acttggagga tttatcaaca gaataaggat gccagatgct gcaatccag tgaacaaa cagaragiga tgaagtgc  aaagatgggt ctgtgtctgg tggatgctt tatctgagt gctgcccctt atcaltgat acaactgggt aactacaga tggaaacagc  cacactggcc ttctatgggt gttattacct ctcatctgt ctacgtatg ccagcagcag catiaacct ttcttaca tctgtctgag  tggaaatttc cagaacagtc tgcctcaat ccaagaaga ggcactgaga aggaatacaa caatatggga aacacttga  aatcaccti tiaggaaagt acaatgatca ccatgagct agacatgatt gctatctta tggtaatt tagaaagggc aggtgtaccc  atatgttat gccattctt ctgtgtact tttgtactt agcagcatgg aagagaagtg taacatgca aatacaatga gcttaatatg  ctaactgtaa aaaaaaaa aaaaaaaa</p> <p>MNPFHASCWN TSAELLNKS W NKEFAYQTAS VVDTVILPSM IGHCTGLV GNILIVFTII P  RSRKKTVDPDI YICNLAVADL VHIVGMPFLI HQWARGGEWV FGGPLCTIIT  SLDTCNQFAC SAIMTVMSVD RYFALVQFPR LTRWRTRYKT IRINLGLWAA  SFILALPVWV YSKVIKFDG VESCAFDLTS PDDVLWYTLV LTIITFFPL PLILVCYILI  LCYTWEWYQQ NKDARCCNPS VPKQXVMKL T KMVLVLVWF ILSAAPIHVI  QLVNLQMEQP TLAIFYVGYL SICLSYASS INPFLYLLS GNFQKRLPQI QRRATEKEIN  NMGNTLKSHP</p>	Homo sapiens
667	194756	Chemokine Receptor FKSG80/GPR81	NM_032554	<p>ccacacac aggaacgca tcttgggtga tgaagtga cagcagcag cttgggtgagt gctaacgctc agataagcat  ctgtccatt gtggggact cttgggtgc ttgcacccg gacactgt ctgtcccgcc calgtacaac gggctgtgt  ggcgcatga gggggacacc atctccagg tgaatggcc gctgtcatt gttggcttgg tgcctggcgc actaggcaat  gggttgccc ttgtgtgtt ctgtctcac atgaagact ggaagccag cactgttac ctittcaat tggccgtggc tgaattcct  cttatgact gcttgcctt tggacagac tattaatca gactagaca ctgggtt ttgggacatc cctggcagat gggctcttc  acgttggcca tgaacaggc cgggagcatc gtttcttta cgttgggtgc tggcgacagg tatticaaag tggccaacc  ccaccagcg tgaacacta tctacaccg gttggcggct ggcactgtct gcaacctgtg gggccgtgtc atcttgggaa  cagtgtact ttgtgtgag aaccatctt cgttgcaaga gacggcgic tctgtgaga gcttcatcat ggaagtcggcc  aatggctggc atgacatcat gttccagctg gatttcttta tggccctggc calcatctta ttgtctct tcaagattgt ttggagccg  aggcggaggc agcagctggc cagacaggct cggatgaaga agggagaccg gttcatcalt gttgtggcaa ttgtgtcat  cacatgtac ctgcccagcg ttctgttag acttatct cttgtggagg tgcctggag tgcctggat cctctgtcc  atggggccct gcaataacc ctacgttca cctacatgaa cagcaltgic gatccctgg tttattatt ttcaagcccc tctttccca  aatctaca caagtcaaa atctgcagtc tgaacccaa gcaagccagg cactcaaaa cacaaggcc ggaagagatg  ccaatttga accctggcg caggagtgc atcagtgagg caaatgtt ccaagaccag tctgatggc aatgggaltc  ccacatgtt ggttggcact gaacaagcag accaacaaca ctgaggaaga tagatgtgtg acttgaatt aactgtgt  aaggggtggc ggggttgaa aatggcacc ccttttta ttgcaagacg gcttctgca catgaacgic atcttctca ttctgtcga  aatgaattc acacaatat accttggg gagggtcag tt</p> <p>MYNGSCCRIE GDTISQVMPP LLIVAFVLGA LGGVALCGF CFHMKTWKPS  TVYLFNLAVA DFLLMICLPF RTDYLLRRR WAFGDIPCRV GLFTLAMNRA  GSIVELTVVA ADRYFKVVP HHA VNTISTR VAAGIVCTLW ALVILGTIVL  LLENHLCVQE TAVSCSFIM ESANGWHDIM FQLEFFMPLG IILFCSFKIV  WSLRRRQQLA RQARMKKATR FIMVVAIVFI TCYLPVSVAR LYFLWTVVPS  ACDPSVHGAL HITLSFTYMN SMLDPLVYF SSFSPFKFYN KLIKCSLKP</p>	Homo sapiens
668	194756	Chemokine Receptor FKSG80/GPR81	NP_115943.1		Homo sapiens



669	194757	G Protein- Coupled Receptor Ls194757	AL162032	QPGHSKTQRP EEMPISNLGR RSCISVANSE QSQSDGQWDP HIVEWH gltcatggagt gttctgcacg gacgtctcgg agagtcggag acgtlaagcag cacagtggag ccaccaacag cagcaaccca gtttctgt acttgccct cctggacttc agtcccgagg aaggggtctcgt gtcgaacac aggtctgtcgc tcaagagagg aaactcac tactccgtt ggcgtgcac tcaactacc aacttgcca tctatgca ggtgtgtccg ctggaggcca acattggcgt cctcgtct gttgacagag tcatctaca gatacagccc gacacataca agatccalg agacccag gcttcaagt tgaagccaa ggcagtgccc gttctgtctc ccatctggg tactctggg gttctggcg gttctgt caacgggtgt gttgtgtt tccatgcat gtttgccag ctaactcc tgcagggact gttcatatc cttttat gttctgaa ttcagagggt agagccgt tcaagcaca aaccaagg tggctgctca cggagcagtc cggccgcacc tccaagcga agccctcca ctggagc cttgaaagg cccggccagg catggctcc accaagctca gcttgggga caagagcag cacttgccc accgctcga cttgcagcc gttgagccg gtaggctggc aacagggcca ggtctgcgtc agaacaccc ccccaaaca gaattgaalg cccaactt gcccaggac cttctctt ctgtctgtc gacatggggg ttgtggccc gagacagctc tctccctt gttctgtc tttcggagca cactgtcag ccaagcagcc tgaagccag gccaagctgg gctctcgt ctgtatcca cctgtgggt gttgagct ctggggggat tccaggggaca cagtggtctc actgtgag tgccctggc cctcccca tcatcagca tcaagccag cgaagccagg acactgggg cgggtccgc agcaccaggga ggggagctc agctctgt cttgggggg gcttgggggac tcaagggcca agaggtgggt caggttccca cgcaccca gtcagggcca ggcagctggg gttgtgtgtt gtagagcag cggaggtccc agtctgtgaa tccactgtat gttgagttoc ccacagccgg cgtcagccgt gttgtgtgtt tctgtgtgtt gttccggggt gggcccaact gttgtgtt atcagttggg ggccctgcc caagccgag tggccgtc gttgagctc gttgagctc caggtggggg cgaacccct gctctgtct tgccgggggt cctctgtc aggtgagag cgtctgtgg cttgaggt gctgtgtt gctgtgtt ggggggggt ctggggaac cgtgtgtt ttggtctt tggagccaa ttggggcta agatggctt cctcgtcgt tgcagcctc cttgtgtt ctggggcc agaggtggc cgtgtccc cagtgctgg tgcaggtgt gaaagtggag ggtatgtt agggcagctc tttccaga ggttccca tggctcag gactctac agtttcta tggggagac accggggcagg tagcacagt cgtctcgt gttccag agacagact gctgtgtt cctcgtc cctcgtc tggagggga ggtctgtgtt cagccgtgt ttctgtgt aggggaaatt atggactcag actcagccc agagggagat gttgagat tttgagccca tttgtgtgt tgatctgt gaaacaggt ttgggtat agatgtat taaagacca cggagatag ggtgtgtt tttatgt gctgagca cgtgtgtt cttgaaat tgggtgag attcacact gttgtgata ctgggaaact ttctttaa actgtgacca tgattcat cagccctc acacccat gttgtgtt ttgaggtt agttgtat gtagcgtt gctgtgtt gctgtgtt gtgtgtt aalgtaac ttccctgt cgtgtgtt gtaggact tctcaggtt tctcaggtt ggtgtgtt ggtgtgtt gtagggag agatgtct caggggtgaa cttgtgtt tctcaggtt gtaggact cgtcaggtt cactgtccac atgtgtcag tggccggc cctcgtgt gctcgtc cgtcgtc cgtcgtc cgtcgtc cgtcgtc cgtcgtc cgtgtc gtaggag ccatgtgt tttgaggt agttgtt tttgaggt cctcgtc cgtcgtc cgtcgtc agaaacag tcatagag cactgtc gttcgtc agccgtgtt gtaggact gtaggact gtaggact gtaggact caatgtac tttgtat tttgtat gtaggact gtaggact gtaggact gtaggact gtaggact gtaggact ttatgt gtaggact tttgtat gtaggact gtaggact gtaggact gtaggact gtaggact gtaggact aggtcag cttatgt aggtcag tttgtat gtaggact gtaggact gtaggact gtaggact gtaggact aagaaatgt atgtgtt ttaggtt gtaggact gtaggact gtaggact gtaggact gtaggact gtaggact cctgaaaaaa aaaa	A	Homo sapiens
670	194757	G Protein- Coupled Receptor Ls194757	CAB82385.1	HGVSARDVLE SRTRQHSEA TNSSNRVFVY CAFLDFSSGE GVWSNHGAL TRGNLTYSVC RCTHLTNFAL LMQVVPLEVN IGILIAVTRV ISQISADNYK IHGDPSAFKL TAKAVAVLLP ILGTSWVFGV LAVNGCAVVF QYMFATLSL	P	Homo sapiens

671	194858	G Protein-Coupled Receptor LS194858	LG94710	QGLFIFLHC LLNSEVRAAF KHKTKVWSLT SSSARTSNAK PFHSDLMNGT RPGMASTKLS PWDKSSHSAH RVDLSAV uagttcaag tcaaggtcga cactgttgg gctgttggg tggtaggcaa tgcgtggggc gggactgtcc cgggaggctc ttcccacag cccctgcagg cacccttggg cggctgtccct ccaggggggt gtagtggct gatgccag cccatggct acggggcag cggctgtcact ggcacttct agggagagga ggggacacag tgtccaggc cccatggcgg ggcgtgctc ataggccagg actgagagga gcaagtgtggc cactgtggg cccagcaca gcccgaagag cagcatggct ccagccgtg ccctgtctg cctccagga agggccggg cagggcgagg gggctatcg cggcacatg cccgtccag ccggcagatg tcctcagct ggcgtgtggc agtggccag acggcgacag agagggaagc agcagcacc ccggcgggca gcaaggagcc atagacttg aggtatagg agtgggctgg gaagatagcc tgggagctgc agtgggacc aggggtccag tggttccac ccaggcggg cagactggga aagacagggg gaccagcoca ggtgagggc agggccagcc gaaatgctcc agggggctgg agtggccca ggaactggat gtagcgtcc cgtgaccca gcaagaggt ggcagagcag agggccagc aggaagtggg agccaagtag acgagaggc aggaagga acccggcga cctgttcc acagccctg caatgtggc aatggccagac cgtgagcag cccagcagc agtaggctca ggaagagga gccaagcagg gggctgcgca ggcggggc cagggcag ccagggcta ggaagaggt cgcgggtg atgagggctg ccaggggcag ggaagagccc aagccccc tgggaatggg gctgggacc tggcagtc tgtgggct cactgtg cttgggacag gggagctcgg gaggcggcagg cggcagc QDTRHGNRC RAGCSNLT LKQAQAGQAP APNSHACRLP LQDSPVPRTK MTPNSTGEVP SPIKGALGL SLALSLIT ANLLALGIA GTAAACAATCW LLLPEPTAGV AAHGSGIATL PGLWNQRRG YWSCLLVYLA PNFSLSLA NLLL VHGERY MAVLRPLQPP GSRLALLT WAGPLLFA SL PALGWNHWTP GANCSSQAIF PAPLYLEVY GLLPVGAA AFLSVRLAT AHRQLQDICI LERA VCRDEP SALARALTWR QARAQAGAML LFGLCWGPYV ATLLSVLAY EQRPLPGPT LLSLSLGS SAAAVPVAMG LGDQRYTAPW RQPKGACRG CGEPPGTVP APALPTTQAA KAVSTWT tcaggccag gataagtaa tcatgggtc cagacactg gctagatgag tgggggggt tgaicctaa tgtatccc atgtagcac agaactgg tggcagtaga gaggaggcag gctcagag cagcagaag tggatticaa actggattg aggacccca cctttgata ggtgactat tctgtgag tctgtat ccccttta aatgagggaag taatccac atggcagggt ggggggga atcagatc atcagcctg gatacaac tgggttctgt ttccagggtc accagactgg ggttctgag catggattca accatccag tctgggtac agaatgaca ccaatcaac gactgagga gactcttg tacaagcaga ccctgagct caggggctg agtgcctg ttccctgt cgcctgaca ggaacggcgg tgggtctg gctcggggc tggcgcagc gcagggaagc tgtctcctc taccctca accgtgtgc gggcgactc cttctcta ggcggccacat tatatgtc ccgtacgoc tcaatatt ccgccatcc atccaata tctcagtc tggatgacc ttccctact ttataggct aagcagc agcggcata gcaccgagc cgtccgtgc atctgtggc ccactggc cggccagat accgtgac ggataggt gtcctct gggccctgc cgtcgtgg agtatcctg agtggatgt cgtgactc cgttttagt gttgact tgtttgtgt gaaagctag atttacc aatcggtg cgtgtttt tatgtgtgt tctgtggg tccagccctg tctgtgtgt caggattc tgtgtatcc ggaagatcc gctgacagg cgtacgga ccatctct cacaagcgt gcttctcc tctgtgctt gcccctgt attcagggg cctgtttc caggatcc cgtggatgga agtctatt tggatgt catctgtt ccatttct gtcgtctt aacagcag ccaacccat catttact ttcgtgggt ctttaggca ggcgcaaat aggcagaac tgaagctgt tctcagag gctcgtcagg acagcctga ggtggatgaa ggtggagggt ggttctca ggaacccg gagctgtgg gaaagatgt ggaagcagta ggaagaaact cgtccctgt agacaggaact ttgagagcaa tgcctgtc ccacccctga caataatg cattttct agcctctgc ctcaagaa	A	Homo sapiens
672	194858	G Protein-Coupled Receptor LS194858	ENSP00000053 533	QGLFIFLHC LLNSEVRAAF KHKTKVWSLT SSSARTSNAK PFHSDLMNGT RPGMASTKLS PWDKSSHSAH RVDLSAV uagttcaag tcaaggtcga cactgttgg gctgttggg tggtaggcaa tgcgtggggc gggactgtcc cgggaggctc ttcccacag cccctgcagg cacccttggg cggctgtccct ccaggggggt gtagtggct gatgccag cccatggct acggggcag cggctgtcact ggcacttct agggagagga ggggacacag tgtccaggc cccatggcgg ggcgtgctc ataggccagg actgagagga gcaagtgtggc cactgtggg cccagcaca gcccgaagag cagcatggct ccagccgtg ccctgtctg cctccagga agggccggg cagggcgagg gggctatcg cggcacatg cccgtccag ccggcagatg tcctcagct ggcgtgtggc agtggccag acggcgacag agagggaagc agcagcacc ccggcgggca gcaaggagcc atagacttg aggtatagg agtgggctgg gaagatagcc tgggagctgc agtgggacc aggggtccag tggttccac ccaggcggg cagactggga aagacagggg gaccagcoca ggtgagggc agggccagcc gaaatgctcc agggggctgg agtggccca ggaactggat gtagcgtcc cgtgaccca gcaagaggt ggcagagcag agggccagc aggaagtggg agccaagtag acgagaggc aggaagga acccggcga cctgttcc acagccctg caatgtggc aatggccagac cgtgagcag cccagcagc agtaggctca ggaagagga gccaagcagg gggctgcgca ggcggggc cagggcag ccagggcta ggaagaggt cgcgggtg atgagggctg ccaggggcag ggaagagccc aagccccc tgggaatggg gctgggacc tggcagtc tgtgggct cactgtg cttgggacag gggagctcgg gaggcggcagg cggcagc QDTRHGNRC RAGCSNLT LKQAQAGQAP APNSHACRLP LQDSPVPRTK MTPNSTGEVP SPIKGALGL SLALSLIT ANLLALGIA GTAAACAATCW LLLPEPTAGV AAHGSGIATL PGLWNQRRG YWSCLLVYLA PNFSLSLA NLLL VHGERY MAVLRPLQPP GSRLALLT WAGPLLFA SL PALGWNHWTP GANCSSQAIF PAPLYLEVY GLLPVGAA AFLSVRLAT AHRQLQDICI LERA VCRDEP SALARALTWR QARAQAGAML LFGLCWGPYV ATLLSVLAY EQRPLPGPT LLSLSLGS SAAAVPVAMG LGDQRYTAPW RQPKGACRG CGEPPGTVP APALPTTQAA KAVSTWT tcaggccag gataagtaa tcatgggtc cagacactg gctagatgag tgggggggt tgaicctaa tgtatccc atgtagcac agaactgg tggcagtaga gaggaggcag gctcagag cagcagaag tggatticaa actggattg aggacccca cctttgata ggtgactat tctgtgag tctgtat ccccttta aatgagggaag taatccac atggcagggt ggggggga atcagatc atcagcctg gatacaac tgggttctgt ttccagggtc accagactgg ggttctgag catggattca accatccag tctgggtac agaatgaca ccaatcaac gactgagga gactcttg tacaagcaga ccctgagct caggggctg agtgcctg ttccctgt cgcctgaca ggaacggcgg tgggtctg gctcggggc tggcgcagc gcagggaagc tgtctcctc taccctca accgtgtgc gggcgactc cttctcta ggcggccacat tatatgtc ccgtacgoc tcaatatt ccgccatcc atccaata tctcagtc tggatgacc ttccctact ttataggct aagcagc agcggcata gcaccgagc cgtccgtgc atctgtggc ccactggc cggccagat accgtgac ggataggt gtcctct gggccctgc cgtcgtgg agtatcctg agtggatgt cgtgactc cgttttagt gttgact tgtttgtgt gaaagctag atttacc aatcggtg cgtgtttt tatgtgtgt tctgtggg tccagccctg tctgtgtgt caggattc tgtgtatcc ggaagatcc gctgacagg cgtacgga ccatctct cacaagcgt gcttctcc tctgtgctt gcccctgt attcagggg cctgtttc caggatcc cgtggatgga agtctatt tggatgt catctgtt ccatttct gtcgtctt aacagcag ccaacccat catttact ttcgtgggt ctttaggca ggcgcaaat aggcagaac tgaagctgt tctcagag gctcgtcagg acagcctga ggtggatgaa ggtggagggt ggttctca ggaacccg gagctgtgg gaaagatgt ggaagcagta ggaagaaact cgtccctgt agacaggaact ttgagagcaa tgcctgtc ccacccctga caataatg cattttct agcctctgc ctcaagaa	P	Homo sapiens
673	194878	MrgX3 G Protein-Coupled Receptor LS194878	AY042215	QGLFIFLHC LLNSEVRAAF KHKTKVWSLT SSSARTSNAK PFHSDLMNGT RPGMASTKLS PWDKSSHSAH RVDLSAV uagttcaag tcaaggtcga cactgttgg gctgttggg tggtaggcaa tgcgtggggc gggactgtcc cgggaggctc ttcccacag cccctgcagg cacccttggg cggctgtccct ccaggggggt gtagtggct gatgccag cccatggct acggggcag cggctgtcact ggcacttct agggagagga ggggacacag tgtccaggc cccatggcgg ggcgtgctc ataggccagg actgagagga gcaagtgtggc cactgtggg cccagcaca gcccgaagag cagcatggct ccagccgtg ccctgtctg cctccagga agggccggg cagggcgagg gggctatcg cggcacatg cccgtccag ccggcagatg tcctcagct ggcgtgtggc agtggccag acggcgacag agagggaagc agcagcacc ccggcgggca gcaaggagcc atagacttg aggtatagg agtgggctgg gaagatagcc tgggagctgc agtgggacc aggggtccag tggttccac ccaggcggg cagactggga aagacagggg gaccagcoca ggtgagggc agggccagcc gaaatgctcc agggggctgg agtggccca ggaactggat gtagcgtcc cgtgaccca gcaagaggt ggcagagcag agggccagc aggaagtggg agccaagtag acgagaggc aggaagga acccggcga cctgttcc acagccctg caatgtggc aatggccagac cgtgagcag cccagcagc agtaggctca ggaagagga gccaagcagg gggctgcgca ggcggggc cagggcag ccagggcta ggaagaggt cgcgggtg atgagggctg ccaggggcag ggaagagccc aagccccc tgggaatggg gctgggacc tggcagtc tgtgggct cactgtg cttgggacag gggagctcgg gaggcggcagg cggcagc QDTRHGNRC RAGCSNLT LKQAQAGQAP APNSHACRLP LQDSPVPRTK MTPNSTGEVP SPIKGALGL SLALSLIT ANLLALGIA GTAAACAATCW LLLPEPTAGV AAHGSGIATL PGLWNQRRG YWSCLLVYLA PNFSLSLA NLLL VHGERY MAVLRPLQPP GSRLALLT WAGPLLFA SL PALGWNHWTP GANCSSQAIF PAPLYLEVY GLLPVGAA AFLSVRLAT AHRQLQDICI LERA VCRDEP SALARALTWR QARAQAGAML LFGLCWGPYV ATLLSVLAY EQRPLPGPT LLSLSLGS SAAAVPVAMG LGDQRYTAPW RQPKGACRG CGEPPGTVP APALPTTQAA KAVSTWT tcaggccag gataagtaa tcatgggtc cagacactg gctagatgag tgggggggt tgaicctaa tgtatccc atgtagcac agaactgg tggcagtaga gaggaggcag gctcagag cagcagaag tggatticaa actggattg aggacccca cctttgata ggtgactat tctgtgag tctgtat ccccttta aatgagggaag taatccac atggcagggt ggggggga atcagatc atcagcctg gatacaac tgggttctgt ttccagggtc accagactgg ggttctgag catggattca accatccag tctgggtac agaatgaca ccaatcaac gactgagga gactcttg tacaagcaga ccctgagct caggggctg agtgcctg ttccctgt cgcctgaca ggaacggcgg tgggtctg gctcggggc tggcgcagc gcagggaagc tgtctcctc taccctca accgtgtgc gggcgactc cttctcta ggcggccacat tatatgtc ccgtacgoc tcaatatt ccgccatcc atccaata tctcagtc tggatgacc ttccctact ttataggct aagcagc agcggcata gcaccgagc cgtccgtgc atctgtggc ccactggc cggccagat accgtgac ggataggt gtcctct gggccctgc cgtcgtgg agtatcctg agtggatgt cgtgactc cgttttagt gttgact tgtttgtgt gaaagctag atttacc aatcggtg cgtgtttt tatgtgtgt tctgtggg tccagccctg tctgtgtgt caggattc tgtgtatcc ggaagatcc gctgacagg cgtacgga ccatctct cacaagcgt gcttctcc tctgtgctt gcccctgt attcagggg cctgtttc caggatcc cgtggatgga agtctatt tggatgt catctgtt ccatttct gtcgtctt aacagcag ccaacccat catttact ttcgtgggt ctttaggca ggcgcaaat aggcagaac tgaagctgt tctcagag gctcgtcagg acagcctga ggtggatgaa ggtggagggt ggttctca ggaacccg gagctgtgg gaaagatgt ggaagcagta ggaagaaact cgtccctgt agacaggaact ttgagagcaa tgcctgtc ccacccctga caataatg cattttct agcctctgc ctcaagaa	A	Homo sapiens

674	194878	MrgX3 G Protein-Coupled Receptor	AAK91806.1	MDSTIPVLGT ELTPINGREE TPCYKQTLSE TGLTCLVSLV ALTGNAVVLW LLGCRMRRNA VSIYILNLVA ADFLFLSGHI ICSPRLINI RHPISKILSP VMTPFYFIGL SMLSAISTER CLSILWPIWY HCRPRYLSS VMCVLLWALS LLRSILEWFMF CDFLSEGADS VWCETSDFIT IAWLVFLCVV LCGSSLVLLV RILCGSRKMP LTRLVVTILL TVLVFLLCGL PFGIQWALFS RIHLWDKVLV CHVHLVSIFL SALNSSANPI IYFFVGSFRQ RQNRQNLKLV LQRALQDTPE VDEGGGWLPQ ETLELSGSRL EQ	P	Homo sapiens
675	194903	G Protein- Coupled Receptor GPCRB3	LG100657	icaaggtggag ccgacggcc tcgtgtatgc ctgaatggag gctctggaagt gctctgtgct gttgaggtct ggagcgagaga ggatcacgta gacataggc agaaaatacc cacoagaagg gctgtctagg ctgtctagcc cagccatcat gttggccgca ggcaggtact tgcctgtgta gacgtctggcc gttgtgaaga aggcgatalcca ggacacgaag ttgaagagga ggcctgaaggt gacacattg gctctgtgt agtctctgg caagtccita cccaggttagc tgcagggcaaa ggcactgtatg gagaggttagc cattgttagag gaagggccagt atgaagccca gggaagtgtgt ctctgtgac tcaagcalca ccaagatgggg gaaagcgtg tattccctag caggcagtg gggtccacac accagcccaag ttgagacagt aagcagctgg gcccgtgagc tgaatcac aaacaggcca gacccgtgtg ttggaccaca ggcgtgtgtat aatgtatgta cctgtgtgga aaacttgaag atgatgatta gttggaaatga gcgaactgtc aggcagagca ggaagatggt gaaaccaaagg gcaaaagagg cctgtgtgtat caagcacgca ggcctgtgtg gttcccaaa gaagccatag aggtctgtccac tacctgtctgc cagtggaagccc agcataagaa agcacaggcg ggccctgtct gacctacca caggggtgtgtc taggtgtccag gcaaacaggc cagcagttccc aagcagcagc agcacagcga gggtgttagc tgcagcagc accaaagagg tgtgtctcag caaagccaaa aacaccacag tgcggcggggaa gcaaggtctgg cttccctcag gttccctc tcttccca caaggtctgg atctgttagag gtcgtgaagg gaaaggccaaag aaggttccgt agagccagat gagcagagta ggaataggaa atagggggct gcaaggaatgt gggaagatgt taccagggca gctagatcat actaggcata gttgggtagg gttatgcccagg agtgggggct gaggccacgc atttctcaa aatgctgtg ttaattacag actgtgaaga cacacagtc ggttctgtat ggcctcagat cccatgaggg ttttgcgaac cctagggggagg acctaacct ggtagctctg cccacatacc agaaaggtta cgtatgtatg ggagcagcct gctcccaagg gagggtgtatg taacccctc ctctgtcag cattccatg aaccatttc ctgagctgt gctctgtgtgt tctctgtgt cctgacccc tgaaggacaga agggaaagt tctgtccct acagagtagg tgaagggaaa gaatgtggcc cctggacac aaataaggac ctgaggtcctt agctacctaa tttgtctct gttctgacc ttgcattct ggaatgggggaa tgcgtttt tttctgtctg cagcacgct agtatctgtat ttacggccaa gctgtcaag gtagctagctg tctttggcat gggtcaacaga agggacagta ggaacagagg gcaaaaagg aacataagct ataatcattt agagaaagag gttgaatca ggaacagct gctttgtat gtaggtgtat gacagctctc taacagagga cacacctcag tctaaagctt tcaatgtgtt aattctct tcttttt ttgttga cagagttt ctctgtgc ccaagctgtgta gttgaatgt gcaatctgg ctacagcaa cctccgctc ccgggttcaa gcaattctc tgcctcagc tcccagtag ctgggaattac agggcacagc cacacgccc gggttaactt ttgtatt ttgtatt ttgtatt ttgtatt ttgtatt ttgtatt ttgtatt ttgtatt gacctagg gataccca cctgggctc ccaaggtgt gggaattacag gttgttagg caggtgtgtc tggaaactct tttttgggg ggacgaatic tgcctgtg ttcagagctg gaatgtat tggctcagc caacctcgc ctctgggtt caaggtgatic tctgtctca gctcccgag tagctgggat tacaggcag cgcacaca cccagctat ttattatt ttgttagag atgggttct accatgttg ccaggtgtgt ctggaactcc cgaacctcaag tgaatcac gctcagct cccaaaggtc tgggtattaca ggcatgagcc accgacacca gttgtgtgtt ctctgtat gaaatgtc tgggttagag tgtctccaa cctgaagctta actggcagcc cagtgtactgg gcttgggtc tgggttagag cagalggggc ccaagggggg cctctccc accgtgtcagc ccccgggagt gctgtgttagc tgcctgtc cattgtccac tcaacctct tgttgggtgaa ggttccagcc ccacaggggca cacactcaaa gacagcagta tggaaacccg taacctctg ctgtgtccct tcaagcagct cgtgtgtgaa cacagactta ggcacctgtat agaaagccaga gggtggccac gtagggggcc aagtcagg agctctaca tgttgaacag aaaacagat ctctgtcat ctgacctcag ggcctactcc caggtgtcaggg cccctgtgtc tgtgaacttc cgtccagggg catctgtcaca	A	Homo sapiens

[illegible]

676	194903	G Protein- Coupled Receptor GPCRB3	LR92	<p> nnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn  nnnnnnnnnn ccaactgctgt aagccacagag gagtccctaa agatgtccgc agagagagagc tatgttcgga ctggcatttt  ttcttttt tctgagacag agtcttgctc tgcgcgccag gatgagagagc agtgcgctga tctgtgctca ctgcaacccc tgcctctggg  gttacaagaaa ttctcttgc tcaagctctt gattacaggtt gattacaggtt gcttgcaccc agccttggtt aatttttgca tttttagcag  agacaggggtt tcaccacgtt ggcacagggcgt gtttccaaact cctgaccctca tgaagctggcc accttagcct cccaaagtgct  tggtgattaca ggcgtgagcc cccgcgcccg gtgcgcgcccg gggagcttga ttcatgagc gtatcttga ctctcagtgag  gaaatgagta gaaagaaatt aagactaaaa tcaagggggaaa gcttatggag actgatgggga gaaatagctt gagggggtgat  gcttggttga attcagcttg tggctgtggc agtggaaaaag gaggccagaaa agagatgaaa gttggggagca gggcacaaggag  gagcagcagt gggcagagact ccaagggtgat ggcacatccc tcaatccct ccaccagagg atttgggctca atacagggaa  aaaaagggct ttgtgtgt agggaggttaa ggtcaatctg ggccttgctg ggttccatgat gttggcaatgt tggggccagca  tcaggggctc agatcagagg ggaaggggact gaggaaaggga ggttaaacca cgaagccaca gcttgcctgg gaaactggaaa  aggggagagag agggggcgca agccttgctcc gggggaatcac ctaccttt agagggagagtg gggcacaagag agagagagagc  tgcaagtgaa agccaggttg gggcagggggc ctgaggggggc cataaatcc aagggaaaagac tctcataggga ggtgactggta  aaaatgtcac aaggggcagc gttccctatg cctgtaact caccatttg ggaaggccag gcaagtgagat tgccttgagcc  caggagttca agggcagctt agggcaacata gttgagacctc tatctcata aaaaatataca aatttagcca ggcattgggttg  cacatggctg tggaccagc tacttaggag tatgaggttg gaggatgtct tgaagctggg agacagtgag acaacattgc  accatggcac tccagcttga gttcagagat gaggactgtt ctcaaaaaa aaaaaaaaaa aaaaatcaca gtcacctaag  ataaagagag actgcaaat aggtattgga taactagag gttgcccagc tcacagcgaa agcaagagtg gttggggagag  aatggggctg aggttcaatg agggcagggga gaggccagca ggaactccc atggggaggg gcaaggggagtg agtgcacag  gtagaggccc tggaaagagg agagagaaat gggcacaacc agggccagggca ggaacccatg gggaaaggatc cataagccaa  ggagggggctg tggttcaagg tacaggggcaa gaataagcac agagagacagta ctgacatcag caaggttgagg catgtcagca  cctctgagcc aggaaggagag aaggaaaagc agggcagggga gactggggag atgtggggca gtataggggc tgggaaagcaa  aggggtgctt ttttgggg gaggagagag ggggacaggt atcatctgt caccaggg ggaatgagat gttggcaatc  cagctcactg caactccac cccagatt ccaagcaatt tctgtctca gcttccaaag tagctggggat tacaggcaca  caccaccat ctacgtaac ttgttat ttagtagaga tgggggttgc ccalactggc caggctgggtc tggaaactct ggcctcaga  gatctgcca gcttcccaa ggggattacag gcatggcca cagggccctt ccaaggatgt caltctaac aagggcaacg  gaactcttg agggagggag gaaatggagg gcaagcagggc tacagctgag tggcagtagt tccaaaggag aatgggtttt  ccatgagag tggagggcag gacttggag cagctctgga aagagagga ggttggggca ggaacccagc tggggcagggga  ccctgactt gtagaag agcagtgacc accaaagga tccaggggggc agggcagctt ggggggggaca gcaagctctg  ccacatgcc ccagccaga ctggctgaa gggagagagg caaaggctc agggctccag ttaccatggg caccagggaaa  ggggcagca ggggggctgt ggttggcagca cggttgggtg tggcagggc aatcagctg agcaccgtag ggggaatgg  gagagggct ccttggagct ctatgggtg tggcct  RSCSFEHGY HLFQAMRLGV EINNSTALL PNITLGYQLY DVCSDSANVY  ATLRVLSLP QHHIELQGD LHYSPVLAV IGPDSINRAA TTAALLSPFL  VHISYAASSE TSVKRQYPS FLRTIPNDKY QVETMVL LQ KFGWTWISLV  GSSDDYGQLG VQALENQALV RGICIAFKDI MPFSAQV GDE RMOCLMRHLA  QAGATVVVVF SSRQLARVFF ESVLTLNL TG KVVVASEAWA LSRHITGVPG  IQRIGMVLGV AIQKRAVPGL KAFEEAYARA DKEAPRCHK GSWCSSNQLC  RECQAFMAHT MPKLKAFSMS SAYNAYRAY VVAHGLHQLL GCASELCSRG  RVYPWQLLEQ IHK VHFLLHK DTVAFNDNRD PLSSYNIAW DWNGPKWTFT. </p>	P	Homo sapiens
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677	194904	WO0034334- hFB41A	AX147788	<p>VLGSSTWSPV QLNINETIKQ WHGKNHQVPK SVCSSDCLEG HQRVVITGFHH CCFECVPCGA GTFLNKSELY RCQPCGTEEW APEGSTCFP RTVVFLALRE HTSWVLLAAN TLLLLLLGT AGLFAWHLDT PVVRSAGGRL CFLMLGLSLAA GSGSLYGFFG EPTRPACLLR QALFALGFTI FLCLTVRSF QLIIFKFST KVPTFYHAWV QNHGAGLFVM ISSAAQLLIC LTWL VVWTP L PAREYQRPPL LVMLECTETN SLGLFLAFLY NGLLSISAF CSYLKGLDPE NYNEAKCVTF SLLNFVSWI AFFTTASVYD GKYLPAANMM AGLSSLSSGF GGYFPLKCYV ILCRPDLNST EHFQASIQDY TRRCGST</p> <p>gagcaaatg atcttttga agtactgac ggtgtctt ttgacgtca cgaagcacag agtgttgatc atgtgttgc tcatggcat gcatcagac atgtagaagg catgtaggta gtgtcttcc ttcaacaaca cgtgtgggaa gaagtcgcgc acgatgttga agccgtagaa gggcgccacag catagcacgt agggcggtgag gatgcacatg agcacacaga cgtcttctt gggcagcgc agcctttgc ggtatgtctc tgtcttgaat ccaggagacc ccttgaacca ggtctcccg gagatcctgg catagcacag ggtatgttgc accaggggc ccagaattc tatgccaaag ataaagaga agttagacti gtagtagagc tgtgtgtcca caggccagat ctggccgacag aagatcttt cttggcttct gacaatgac aggacgtct cgtgtgttga gtaggggaa gggatggcga tcatgatgga cactgtccac accaaggcaa tcatggcagt ggtgttgg cacttctc gtgtctcag cggatggaca atagccagat acctaggga agaacacaa gtagggcagc c</p>	A	Homo sapiens
678	194904	WO0034334- hFB41A	LR114	<p>MGFMDDNATN TSTFLSVLN PHGAHATSP FNFYSYDYM PLDEDEDVTN SRTFFAAKIV IGMALVGIML VCGIGNFIFI AALVRYKKLR NLTLNLIANL AISDFLVAIV CCPFEMDYV VRQLSWEHGH VLCTSVNLYR TVSLYVSTNA LLAIDRYL AIVHPLRPRM KQQTATGLIA LVWTVSLIA IPSAYTTTET VLIVKSQEK IFCGQIWPVD QQLYKSYFL FIFGIEFVGP VVMTLCYAR ISRELWFKAV PGFQTEQIRK RLRCRRKTVL VLMCILTAYV LCWAPFYGFT IVRDFPTVF VKEKHYLTAF YIVECIAMSN SMINTLCFVT VKNDTVKYFK KIMLLHWKAS YNGGKSSADL DLKTIGMPAT EEVDCLRK</p>	P	Homo sapiens
679	194905	G Protein- Coupled Receptor MGC7035	BC014241	<p>ggcacaggc gccggccgc atgtggagt gcatgtggt caacggcaca gggctgttgg agtgagctgc tgcctgocag gacttgacg tggggctgtc actgtgtcg ctgttggcc tgggtgttgg cgttgccagtg ggcctgttgc acacgccct gctgtgtctg gccaactac acagcaaggc cagcatgacc atgcccggac gtacttgt caacatggca gtggcaggcc tgtgtgtcag cggccgtggcc cctgtgaccc tgcctggccc cccgagctcc cgttggggcg tgttgagtg gggcgggcga gtccagtg cactgcagat cccctcaat gtgtctcac tgggtggccat gtactccac gcccgtctga gcccagacca ctacatcgag cgtgcacag cggcgacctt catggccagc gtgtacaca cggcgccagt gtgcggcttc gtgtgttgg gcccgtct gaccagctc tcttctctc tcttctac ctgacccat gtgtccacc ggcgctaga gtgtgccaag atgcagaacg cagaagctgc cgaccacg ctgtgttca tgggtactgt gtgtgcca cttggccacc tctacgct gtgtctact tcccgcttc gtagggagga caccgcccgt gacggggaca cggcccggtt gtagcccttc gacacaggc tgtgtgttgc caccgtgtc acgcatgtt ggtcttggac gccacatct ctgacttgc tggggcacac ggtcatc tcgcaggga agccgttga cgcacactac ctggggctac tgcactgt gaaggtattc tccaaactc tggccttctc cagcagctt gtgacaccac tttctacc gtacatgaac cagagcttc ccagcaagct ccaacggctg atgaaaaagc tggccttgcgg ggaocggcac tgcctcccg accacatgg ggtgcagcag gtgtgttgcgt aggtgggcca ggcctcttgc ggagacgtga ctctgttga cgcagagcac ttagtacc tggagcttc ccacatctt ccagaaaggag acgagcttct ggagaggaag caggagggtt gtttttgc aagttctt ttccacaa atggcactct tggggcaggg ctgtgttccc cgtgtcttgc atctgttgc agtctcccg agggccttgc gtctccaaa cagcagctc aaggttccaca tctgcaaaag</p>	A	Homo sapiens

680	194905	G Protein- Coupled Receptor MGC7035	LR112	<p>ccctcgcgc ttacgctcc tcagcatca gttgtcaat gaagtgaag aagcttagag ccagtattta tactttggg ttaaaatact tgattccccc ttgtttgttt tacaataca gatgttctt agaaaaatga caaatagtaa aatgaacaaa accctacgaa agaattggcaa cagcagggt ggccggggcc tgcagtggtg cgggtgtgc tagcaaggcc tgcgggtgtg tgcgcagtica ccacagggt ctgagaacat ttacagaag tgcctgagac gggagacat ggcgtgtgtt aataggagct attcaatagc agtgacggc tctctcagc caccaaatgt cctgacacc cccccagcc ccacagata acatcagctg aggttttt cagatgaac ctgctctaaa tcaattctc aaagtgtga caaaactaaa gaalataat aaacaaga aagggaataa aaaaaaaa aaaa MWSCSWFNGT XLVEELXACQ DLQLGLSLLS LLGLVVGVPV GLCYNALLVL ANLSKASMT MPDVVYFNMA VAGLVLSALA PVHLLGPPSS RWALWSVGGE VHVALQIPFN VSSLVAMYST ALLSLDHYIE RALPRTYMAS VYNTRHVCGF VWGGALLTSF SLLFYICSH VSTRALECAK MQNAEADAT LVFIGYVVPV LATLYALVLL SRVRREDTPL DRDTGRLEPS AHRLLVATVC TQFGLWTPHY LILLGHTVII SRGKPVDAHY LGLLHFVKDF SKLLAFSSSF VTPLLRYMYN QSFPSKLQRL MKKLPCGDRH CSPDHMGVQQ VLA TCCGACTAG TTCTAGACC CTGCGGGCCG CCAGCGCCG GGAATGTCCC CTGAATGCGC GCGGCAGCG GCGACGCGC CTTGGCGAG CCTGGAGCAA GCCAACCGCA CCGGCTTCC CTCTTCTCC GACGTCAAG GCGACCCCG GCTGTGCTG GCGCGGTGG AGACAACCGT GCTGTGCTC ATCTTTGACG TGTGCTGTG GGGCAACGTG TCGCCCTGG TGTGTGTGG GCGCGACGA CGCGCGGGC GACTGCTG CTTGTGCTT AACCTCTTCT GCGCGACCT GCTCTTATC AGCGTATCC CTCTGTGCTT GGCCGTGCGC TGGACTGAGG CCTCCCTGCT GGGCCCCGT GCGTCCACC TGCTTCTTA CGTGATGACC CTGAGCGGCA GCGTCAACAT CCTACGCTG GCGCGGTCA GCGTGGAGGG CATGTGRC ATCRGCACC TGGAGCGGG CGTGGGGGT CCTCCGGGC GGCGCGGGC AGTGTGCTG GCSTCATCT GGGCTATC GCGGTGCGC GCTTGCTC TGTCGTCTT CTTTCGAGTC GTCCCGAAC GGTCCCGG CGCGAACAG GAAATTCGA TTTCACACT GATTGGCC AGCATTCCTC GAGATCTC GTGGGATGC TCTTTTGTTA CTTTGAAC TTGTGGCCA GGACTGTCA TTGTGATCAG TTAATCCAA ATTTACAGA TCACAAAGG ATCAAGGAAG AGGCTACCG TAAGCTGGC CTACTCGGAG ACCACAGA TCCGCTGTC CCAGCAGGAC TTCCGGCTCT TCCGACCCCT CTTCCTCTC ATGGTCTCT TCTTCATCAT GTGGAGCCC ATCATCATCA CCATCCTCT CATCTGATC CAGAACTCA AGCAAGACCT GGTATCTGG CCGTCCCTCT TCTTCTGGGT GTCCCTCTC ACATTTGCTA ATTCAGCCCT AAACCCATC CTCTACACA TGACACTGTG CAGGAATGAG TGGAGAAGAAA TTTTGTGTG CTTCTGTTT CCAGAAAAGG GAGCCATTT AACAGACACA TCTGTCAAAA GAAATGACTT GTCGATTAIT TCTGGCTAAT TTCTTTATA GCCGAGTTT TCACACCTGG CGAGCTGTG CATGCTTTA AACAGAGTTC ATTCCAGTA CCCTCCATCA GTGCACCCCTG CTTAAGAAA ATGAACCTAT GCAAATAGAC ATCCACAGCG TCGGTAAAT AAGGGGTGAT CACCAAGTTT CATAATATT TCCCTTTATA AAAGGATTG TTGCCAGGT GCAGTGGTTC ATGCTGTAA</p>	P	Homo sapiens
681	194907	G Protein- Coupled Receptor 14273	LD22826	<p>ccctcgcgc ttacgctcc tcagcatca gttgtcaat gaagtgaag aagcttagag ccagtattta tactttggg ttaaaatact tgattccccc ttgtttgttt tacaataca gatgttctt agaaaaatga caaatagtaa aatgaacaaa accctacgaa agaattggcaa cagcagggt ggccggggcc tgcagtggtg cgggtgtgc tagcaaggcc tgcgggtgtg tgcgcagtica ccacagggt ctgagaacat ttacagaag tgcctgagac gggagacat ggcgtgtgtt aataggagct attcaatagc agtgacggc tctctcagc caccaaatgt cctgacacc cccccagcc ccacagata acatcagctg aggttttt cagatgaac ctgctctaaa tcaattctc aaagtgtga caaaactaaa gaalataat aaacaaga aagggaataa aaaaaaaa aaaa MWSCSWFNGT XLVEELXACQ DLQLGLSLLS LLGLVVGVPV GLCYNALLVL ANLSKASMT MPDVVYFNMA VAGLVLSALA PVHLLGPPSS RWALWSVGGE VHVALQIPFN VSSLVAMYST ALLSLDHYIE RALPRTYMAS VYNTRHVCGF VWGGALLTSF SLLFYICSH VSTRALECAK MQNAEADAT LVFIGYVVPV LATLYALVLL SRVRREDTPL DRDTGRLEPS AHRLLVATVC TQFGLWTPHY LILLGHTVII SRGKPVDAHY LGLLHFVKDF SKLLAFSSSF VTPLLRYMYN QSFPSKLQRL MKKLPCGDRH CSPDHMGVQQ VLA TCCGACTAG TTCTAGACC CTGCGGGCCG CCAGCGCCG GGAATGTCCC CTGAATGCGC GCGGCAGCG GCGACGCGC CTTGGCGAG CCTGGAGCAA GCCAACCGCA CCGGCTTCC CTCTTCTCC GACGTCAAG GCGACCCCG GCTGTGCTG GCGCGGTGG AGACAACCGT GCTGTGCTC ATCTTTGACG TGTGCTGTG GGGCAACGTG TCGCCCTGG TGTGTGTGG GCGCGACGA CGCGCGGGC GACTGCTG CTTGTGCTT AACCTCTTCT GCGCGACCT GCTCTTATC AGCGTATCC CTCTGTGCTT GGCCGTGCGC TGGACTGAGG CCTCCCTGCT GGGCCCCGT GCGTCCACC TGCTTCTTA CGTGATGACC CTGAGCGGCA GCGTCAACAT CCTACGCTG GCGCGGTCA GCGTGGAGGG CATGTGRC ATCRGCACC TGGAGCGGG CGTGGGGGT CCTCCGGGC GGCGCGGGC AGTGTGCTG GCSTCATCT GGGCTATC GCGGTGCGC GCTTGCTC TGTCGTCTT CTTTCGAGTC GTCCCGAAC GGTCCCGG CGCGAACAG GAAATTCGA TTTCACACT GATTGGCC AGCATTCCTC GAGATCTC GTGGGATGC TCTTTTGTTA CTTTGAAC TTGTGGCCA GGACTGTCA TTGTGATCAG TTAATCCAA ATTTACAGA TCACAAAGG ATCAAGGAAG AGGCTACCG TAAGCTGGC CTACTCGGAG ACCACAGA TCCGCTGTC CCAGCAGGAC TTCCGGCTCT TCCGACCCCT CTTCCTCTC ATGGTCTCT TCTTCATCAT GTGGAGCCC ATCATCATCA CCATCCTCT CATCTGATC CAGAACTCA AGCAAGACCT GGTATCTGG CCGTCCCTCT TCTTCTGGGT GTCCCTCTC ACATTTGCTA ATTCAGCCCT AAACCCATC CTCTACACA TGACACTGTG CAGGAATGAG TGGAGAAGAAA TTTTGTGTG CTTCTGTTT CCAGAAAAGG GAGCCATTT AACAGACACA TCTGTCAAAA GAAATGACTT GTCGATTAIT TCTGGCTAAT TTCTTTATA GCCGAGTTT TCACACCTGG CGAGCTGTG CATGCTTTA AACAGAGTTC ATTCCAGTA CCCTCCATCA GTGCACCCCTG CTTAAGAAA ATGAACCTAT GCAAATAGAC ATCCACAGCG TCGGTAAAT AAGGGGTGAT CACCAAGTTT CATAATATT TCCCTTTATA AAAGGATTG TTGCCAGGT GCAGTGGTTC ATGCTGTAA</p>	A	Homo sapiens

682	194907	G Protein- Coupled Receptor 14273	LR1116	<p>TCCCAGCAGT TTGGGTGAG GTGGGTGGAT CACCTGAGGT CAGGAGTTCG AGACCAACCT GACCAACATG GTGAGACCCC CGTCTCTACT AAAAAATAAAA AAAAAATAA GCTGGGAGTG GTGGTGGCA CCTGTAATCC TAGTACTTGG GGAGGCTCAA CCACGAGAA CTCTTGAACC TGGGAGGCAG AGGTTGCAGT GAGCCGAGAT CGTGCCATG CACTCCACC AGGGCAACAA GAGTGAAACT CCATCTTAAA AAAAAAAA AAAGATTGT TATGGGTCC TTTTAAATGT GAACTTTTT AGTGTTTG TATATGATCA AATTTAATAA ATATTATTT ATGACTGTC AGCAAAAAA AAAAAAAA AGGGCGG MSPECARAAG DAPLRLEQA NRTRFFESD VKGDHRLVLA AVETTVLVLI FAVSLGNVC ALVLVARRR RGATACLVLN LFCADLLFIS APLVLA VRW TEAWLLGPVA CHLLFYVMTL SGSVTILTL AVSLDRMVC I VMLQRGVRC GRRARAVLLA LIWGYSAVAA LPLCVFFRVV PQRLLPGADQE ISICTLIWPT IPGEISWDVS FVTNLFVPG LVVISYSKI LQTTKASRKR LTVSLAYSRS HQIRVSQQDF RLFRFLLM VSFIMWSP I IDTILLILQ NFKQDLVIWP SLPPVWVAPT FANSALNPIL YNMTLORNEW KKIFCCTWFP EKGAILTDT S VKRNDLSHS G ITYSAISDEL RDKVRFPALL RTTPSADHHV EAMVQMLMHF RWNWIVLVLS SDTYGRDNGQ LLGERVARRD ICIAFQETLP TLQPNQNMTS EERQLVTVV DKLQOSTAR VVVFSPDLTL YHFFNEVLRLQ NFTGAVWIAS ESWAIDPVLH NLTELHLGT FLGITIQSV IPGFSEFREW GPQAGPPPLS RTSQSYTCNQ ECDNCLNATL SFNTILRSG ERVVYSVYSA VYAVAHALHS LLGCDKSTCT KRVVYPWQLL EEIWKVNFTL LDHQIFFDPO GDVALHLEIV QWQWDRSQNP FQSVASYPL QRQLKNIKTS LHTVNNTPM SMCSCRQCSG QKKKPVGIHV CCFECIDCLP GTFLNHTCP NNEWSYQSET SCFKRQL VFL EWEAPTIAV ALLAALGFLS TLAILVIFWR HFQTPIVRSA GPMCFMLMT LLLVAYMVVP VYVGPKVST CLCRQALFPL CFTICISIA VRSFQIVCAF KMASRFPRAV SYWVRYQGPY VSMAFITVLK MVIVVIGMLA RPQSHPRDTP DDPKTIIVSC NPNYRNSLLF NTSLDLLSV VGFSFAYMGK ELPTNYNEAK FTLSMTIFY TSSVSLCTFM SAYSGVL VTI VDLLVTVLNL LAISLGYFPG KCYMILFYPE RNTPAYFNSM IQGYTMRRD</p> <p>atgagcagca attcatcc tctgtgtgct gtcagcgt gtcagcgt cgtgaaagg tctgtgtga aaatccctt ctgcgggga tccgggga tctgtat agtittggc ttggggctg tctgtgtgct gttggaaac cctcgtgga tgaattcaat cctccattc aagcagctg actcctggc caatttctc gtgccttc tggcctgcg tgaattctg gttgggtgga cgtgagcc cttcagcat gtcaggacgg tggagagctg ctgtattt gggagaggti ttgtacti ccacacctg tgtatgtgg catittgta ctctcttc ttactgt gcttctc catcagagg tacattggg ttactgccc cctgtctat cctaccaagt tcaccgtac tgtgtcagga attgtatca gctgtctg gatctgccc ctcagta cgggtgtgtgt gtctacaca ggtgtctatg acgatgggt ggaggaafta tctgatccc taaactgt aggggtgt cagaccgtg taaatcaaaa ctgggtgtg acagatttct tctctct tatactacc ttattatga taattcgtg ttgtaacata ttctgtgg ctgagcaga ggcgaaaaag alagaaaaa cgtgtgca gacagaatca tctcagaga gttacaaagc cagatggcc agagagaga gaaaagcagc taaacccctg ggggtcacag tggtagcatt tatgattca tggtaaccat atagcatga ttcaattat gatgcattat tggccttatt aaccctgccc tgaattatg agattgtctg ttgggtgtct tatataact cagccatga tctttgat tagtcttat ttaccatg gtttaggaaa gcaataaag</p>	P	Homo sapiens
683	194908	G Protein-coupled Receptor Gpcrb4	LR117	<p>ITYSAISDEL RDKVRFPALL RTTPSADHHV EAMVQMLMHF RWNWIVLVLS SDTYGRDNGQ LLGERVARRD ICIAFQETLP TLQPNQNMTS EERQLVTVV DKLQOSTAR VVVFSPDLTL YHFFNEVLRLQ NFTGAVWIAS ESWAIDPVLH NLTELHLGT FLGITIQSV IPGFSEFREW GPQAGPPPLS RTSQSYTCNQ ECDNCLNATL SFNTILRSG ERVVYSVYSA VYAVAHALHS LLGCDKSTCT KRVVYPWQLL EEIWKVNFTL LDHQIFFDPO GDVALHLEIV QWQWDRSQNP FQSVASYPL QRQLKNIKTS LHTVNNTPM SMCSCRQCSG QKKKPVGIHV CCFECIDCLP GTFLNHTCP NNEWSYQSET SCFKRQL VFL EWEAPTIAV ALLAALGFLS TLAILVIFWR HFQTPIVRSA GPMCFMLMT LLLVAYMVVP VYVGPKVST CLCRQALFPL CFTICISIA VRSFQIVCAF KMASRFPRAV SYWVRYQGPY VSMAFITVLK MVIVVIGMLA RPQSHPRDTP DDPKTIIVSC NPNYRNSLLF NTSLDLLSV VGFSFAYMGK ELPTNYNEAK FTLSMTIFY TSSVSLCTFM SAYSGVL VTI VDLLVTVLNL LAISLGYFPG KCYMILFYPE RNTPAYFNSM IQGYTMRRD</p>	P	Homo sapiens
684	194957	Trace Amine Receptor 4 (TA4)	AF380192	<p>atgagcagca attcatcc tctgtgtgct gtcagcgt gtcagcgt cgtgaaagg tctgtgtga aaatccctt ctgcgggga tccgggga tctgtat agtittggc ttggggctg tctgtgtgct gttggaaac cctcgtgga tgaattcaat cctccattc aagcagctg actcctggc caatttctc gtgccttc tggcctgcg tgaattctg gttgggtgga cgtgagcc cttcagcat gtcaggacgg tggagagctg ctgtattt gggagaggti ttgtacti ccacacctg tgtatgtgg catittgta ctctcttc ttactgt gcttctc catcagagg tacattggg ttactgccc cctgtctat cctaccaagt tcaccgtac tgtgtcagga attgtatca gctgtctg gatctgccc ctcagta cgggtgtgtgt gtctacaca ggtgtctatg acgatgggt ggaggaafta tctgatccc taaactgt aggggtgt cagaccgtg taaatcaaaa ctgggtgtg acagatttct tctctct tatactacc ttattatga taattcgtg ttgtaacata ttctgtgg ctgagcaga ggcgaaaaag alagaaaaa cgtgtgca gacagaatca tctcagaga gttacaaagc cagatggcc agagagaga gaaaagcagc taaacccctg ggggtcacag tggtagcatt tatgattca tggtaaccat atagcatga ttcaattat gatgcattat tggccttatt aaccctgccc tgaattatg agattgtctg ttgggtgtct tatataact cagccatga tctttgat tagtcttat ttaccatg gtttaggaaa gcaataaag</p>	A	Homo sapiens



685	194957	Trace Amine Receptor 4 (TA4)	AAK71243.1	<p>tattgtaac tggcaggt ttaagaaca gttcagcaac calgaattg ttcttgaac alataaa</p> <p>MSSNSLLVA VQLCYANVNG SCVKIPSPG SRVILYIVFG FGAVLAVFGN</p> <p>LLVMISILHF KQLHSPTNFL VASLACADFL VGVTVMPFSM VRTVESCWFY</p> <p>GRSFCFTHTC CDVAFCYSSL FHLCFISDR YIAVTDPLVY PKFTVSVSG ICISVSWILP</p> <p>LMYSGAVFYT GUYDDGLEEL SDALNCIGCG QTVNQNWVL TDFLSFFIPT</p> <p>FMIILYGNL FLVARRQAK IENTGSKTES SSESYPKARVA RRERKAAKTL</p> <p>GVTVAFMIS WLPYSIDSLI DAFMGFITPA CIYEICWCWA YNSAMNPLI</p> <p>YALFYPWFRK AIKVIVTGVV LKNSSATMNL FSEHI</p>	P	Homo sapiens
686	194958	Trace Amine Receptor 5 (TA5)	AF380193	<p>atgaccaga attttcca acctgttg cagcttgc atgaggatgt gaalggatct tgiattgaaa ctccattc tctgggtcc</p> <p>cggtaatic tgaacggc gtttagcti tggctttgc tggctgtatt tggaaatct tgaataga ctctgtct tcatthaa</p> <p>cagctgcaat ctcaacaaa ttttcaat gccctcgg cctgtcgg cctgtcga cttctgga ggtgtgactg tgaacttt cagcaggic</p> <p>aggacgggg agagctgctg gtiattgga gccaaattt giactctca cagtgctgt gatgtggcat ttgttact tctgtctc</p> <p>cacttgct tcatgcat cgacaggta atgttgga ctgacccct ggtctatgt accaagtca cgtgtctgt gtcgggaat</p> <p>tgcacagcg tgcctggat tctgctct acgtacagcg gtcgtgtgt ctacacaggt gtaacagat atgggctgga</p> <p>ggaattagta agtctctca actgctagg tggctgcaa atattglaa acaacaagc gtaaggctg ggtgtgata gattttct tattctcat</p> <p>acctaccct gtaagataa tctttacag taagatttt ctatagta acaacaagc tataaaat gaaactacta gtacaaagt</p> <p>agaalcatc tcagagagt ataaatcac agtggccaa agagagaga aagcagctaa aacctgggg gtcacggta</p> <p>tagcattgt tattcatg tiaccgata cagtgtat ataatgat gccctttag gcttctgac cctgtcctat atctatgaa</p> <p>ttgtgtg gtagtctat tataactcag ccatgaatc ttgtattat gctctatt atcttggt taggaaagc ataaactia</p> <p>tttaagg agatgta aagctagt calcaact tagttatt ttagaata</p> <p>MTSNFSQPVV QLCYEDVNGS CIETPSPGS RVILYTAFSF GSLLAVFGNL</p> <p>LVMTSVLHFK QLHSPTNFLI ASLACADFLV GVTVMLFMSV RTVESCWFYFG</p> <p>AKFCTLHSCC DVAFCYSSVL HLCFICIDRY IVVTDPLVYA TKFTVSVSGI CISVSWILPL</p> <p>TYSGAVFYTG VNDDGLEELV SALNCVGGCQ IIVSQGWLI DFLFFIPTL VMILYSKIF</p> <p>LJAKQQAQKI ETTSSKVESS SESYKIRVAK RERKAAKTLG VTVLAFVISW LPYTVDLID</p> <p>AFMGELTPAY IYEICCWSAY YNSAMNPLIY ALFYPWFRKA IKLILSGDVL</p> <p>KASSTISLF LE</p>	A	Homo sapiens
687	194958	Trace Amine Receptor 5 (TA5)	AAK71244.1	<p>tgcaggtct tcttctgt ccatggatga ccagctctag tcaagatgt gtcacaacca cctctgtg tatctgaat cctccacctg</p> <p>aaagaaaatt tcaagaccag gatagattaa tcatcgggt caaagccctg gccggatgag tgggggtgt tigtactaa</p> <p>tgtattccc atgtcagcac agaactgtg tggcagtaga gtagtgcag gcttcagagt caacaagaac tggattcaa</p> <p>actggattg aggacccca ccttggtaa gtagtatt aictgcgagc cctgttct cttcttia aatgaggaca gtaaatccca</p> <p>tacggcaggg tggggggag aatcagagat gatacagct gtagatcat ctgtgtgtg ttccacgggg caccagacta</p> <p>gagtcttga gcatgatac aaccgtcca gctctggga caaaactgac accaatcaac ggacgtgag agactcttg</p> <p>ctacaatcag acctgagct tcaaggtct gacgtgcatc atttccctg tggactgac aggaacgag gtagtctct</p> <p>ggctctggg ctaccgcatg cgagggaacg ctgtctcat ctacatctc aacctggcg cagcagacti ccttctc</p> <p>agctccaga ttacgttc gccattacg ctatcaata tcaagcatct calccgcaaa atctcgtt ctgtgagac cttccctac</p> <p>ttacagggc tgaatgct gaggccalc agcaccgagc gctgcctgc tgtctgtg cctatctgt accgtcggc</p> <p>cggcccca cactgtcag cgtctgtg tgtctgtc tggggctgt cctgtgtgt tagtatgtg gtagggaggt tctgtgact</p> <p>cctgtttagt ggtgtgatt ctagtggg tgaacgtca gattatcc cagtcgctg gctgattt ttatgtgtg tctgtgt</p> <p>ttcagccg gctgtctg tcaagatct ctgtggatcc cgggaagatgc cgtgtgacag gctgtagtg accatctg</p>	P	Homo sapiens
688	194989	MrgX4 G Protein-Coupled Receptor	AY042216	<p>tgcaggtct tcttctgt ccatggatga ccagctctag tcaagatgt gtcacaacca cctctgtg tatctgaat cctccacctg</p> <p>aaagaaaatt tcaagaccag gatagattaa tcatcgggt caaagccctg gccggatgag tgggggtgt tigtactaa</p> <p>tgtattccc atgtcagcac agaactgtg tggcagtaga gtagtgcag gcttcagagt caacaagaac tggattcaa</p> <p>actggattg aggacccca ccttggtaa gtagtatt aictgcgagc cctgttct cttcttia aatgaggaca gtaaatccca</p> <p>tacggcaggg tggggggag aatcagagat gatacagct gtagatcat ctgtgtgtg ttccacgggg caccagacta</p> <p>gagtcttga gcatgatac aaccgtcca gctctggga caaaactgac accaatcaac ggacgtgag agactcttg</p> <p>ctacaatcag acctgagct tcaaggtct gacgtgcatc atttccctg tggactgac aggaacgag gtagtctct</p> <p>ggctctggg ctaccgcatg cgagggaacg ctgtctcat ctacatctc aacctggcg cagcagacti ccttctc</p> <p>agctccaga ttacgttc gccattacg ctatcaata tcaagcatct calccgcaaa atctcgtt ctgtgagac cttccctac</p> <p>ttacagggc tgaatgct gaggccalc agcaccgagc gctgcctgc tgtctgtg cctatctgt accgtcggc</p> <p>cggcccca cactgtcag cgtctgtg tgtctgtc tggggctgt cctgtgtgt tagtatgtg gtagggaggt tctgtgact</p> <p>cctgtttagt ggtgtgatt ctagtggg tgaacgtca gattatcc cagtcgctg gctgattt ttatgtgtg tctgtgt</p> <p>ttcagccg gctgtctg tcaagatct ctgtggatcc cgggaagatgc cgtgtgacag gctgtagtg accatctg</p>	A	Homo sapiens

689	194989	MrgX4 G Protein-Coupled Receptor	AAK91807.1	<p>tcacagtgt ggtcttctc ctctggggc tgccttcgg cctcttgagg gcciaattt acaggatgca cctgaatttg gaagtctat  atgtcatgt ttatctggt tcatgtccc tgcctctct aaacagtagt gccaaaccca tcatcttcti ctcttgaggc tcttttaggc  agcgtcaaaa taggcagaac ctgaagctcgg tctccagag ggcctcgcag gacaagcctg aggtggataa aggtgaagg  cagcttcctg aggaagcctt ggaagcctg ggaagcagat tggggccatg agggagagoc tctgcccgt cagtcagacg  ggacttgag agcaacactg tctgtccacc ctgacaatt ttctagcgtt ttgcttcag ttgcttcag aaatctca gttgaact  aagctctca aataaattg tatcaact gcagctgca gttitaccc atggaagca ttatctgac agtiacaagt ttgg  MDPTVPVFGT KLTPINGREE TPCYNQTL SF TVLTCTIISLV GLTGNVAVLV  LLGYRMRRNA VSIYLNLA ADFLFLSFQI IRSPLRLINI SHLRKILVS VMTPYFTGL  SMLSIAISTER CLSVLWPIWY RCRPRTHLSA VVCVLLWGLS LLSFMLEWRF  CDFLFGADS SWCETSDFIP VAWLJFLCVV LCVSSLVLLV RILGSRKMP  LTRLVVTILL TVLVFLCGL PFGILGALY RMHLNLEVLY CHVYLVCMSL  SSLNSSANPI IYFFVGSFRQ RQNRQNLKV LQRALQDKPE VDKGEGQLPE  ESLELSGRL GP</p>	P	Homo sapiens
690	195015	G Protein- Coupled Receptor GPR82	AF411111	<p>atgaacaaca atacaacatg tattcaacca tctatgatct ctccatggc ttaccaalc attiatatcc tctttgtat tgttgtgtt  tttggaaaca ctctctca atggatatt ttacaacaaa taggiaaaaa aacatcaacg cacatctacc tgcacacct tgtgactgca  aactacttg tgtgcagtc calgccttc atgagtatct attctcgaa aggtttccaa tgggaatac aatctgctca atgcagagtg  gtcaatttc tgggaactct atccatgcat gcaagtatgt ttgcatgct cttaattta aglttgatg ccaataagccg ctatgctacc  ttaatgcaaa aggatcttc gcaagagact actcatgct atgagaaaat attitagg cattactga aaaaattcg ccagcccaac  tttgctagaa aactatgcat ttacatagg ggagtgtac tgggacaaat cattcagtt accgtatct atcgatcat agaggctaca  gaaggagaag agagcctatg ctacaatcgg cagatggaaac tagggagccat gatctctcag atgcaggic tcatggaaac  cacatttatt ggatttctt tttagtati actaatca tactactct ttgtaagcca tctgagaaaa ataagaacct gtacgtccat  tatggagaaa gatttgactt acagtctgt gaaaagacat ctttggtca tccagtct actaatgtt tgcctctc ctatagtat  ttttaaaccc attttatg ttctacaca aagagataac tgcagcaat tgaattatt aatagaaca aaaaacattc tcaactgtct  tgcctggcc agaagtagca cagaccccat tatattctt ttattagca aaacattca gaagacacta tataatctt ttacaagtc  taattcaga cataatgcat catagttg a</p>	A	Homo sapiens
691	195015	G Protein- Coupled Receptor GPR82	AAL26482	<p>MNNNTTCIQP SMISSMALPI IYLLLCIVGV FGNTLSQWIF LTKIGKKTST HIYLSHL VTA  NLLVCSAMPF MSYFLKGFQ WEYQSAQCRV VNFLGTL SMH ASMFVSLLL  SWAISRYAT LMQKDSSET TSCYEKIFYG HLLKKFRQPN FARKLCYIW GVVLGIIIPV  TVYYSVIEAT EGEESLCYNR QMELGAMISQ IAGLIGTTFI GFSFLVVLTS  YYSFVSHLRK IRTCTSIMEK DLTYSVVKRH LLVIQILLIV CFLPYSIFKP IFYVLHQRDN  CQQLNYLIET KNIL TCLASA RSSTDPIIFL LLDKTFKKTL YNLFTKSNSA HMQSYG</p>	P	Homo sapiens

SEQ ID NO:	LSID	Gene	Source ID	Sequence	Code	Species Name
1	127	5-HT1A Receptor	NM_000524	atggaatgtgc tcagccctgg tcagggaac aacaccacat caccaccggc tccctttgag accggcgaggc aactactagg tatctccgac gtgaccgtca gctaccaagt gatcacctct ctgctgctgg gcacgtctcat ctctgcgcg gtgctgggca atgctgctg ggtggctgcc atcgccctgg agcgctccct gcagaacgtg gccaatatc ttattggctc ttggcggtc accgacctca tgggtgctgg gttggtgctg cccatggcgg cgtgtatca ggtgctcaac aagtggacac tgggccagggt aacctgcgac ctgttcacg cctcgacgt gctgtgctgc acctcatcca tcttgacact gtgcgccatc gcgctggaca ggtactgggc catcacggac cccatcgact acgtgaacaa gaggacgcc cggccgcgtg cgctcatc gctcaactgg cttattggct tctcatctc tatccgccc atcctgggt ggcgacccc ggaagaccgc tcggaccccc acgcatgcac cattagcaag gatcatggct acatatcta ttccaccttt ggagctttct acatcccgct gctgctcatg ctggttctct atggcgcat attccgagct gcgcgcttcc gcatccgcaa gacgtcaaa aggtggaga agaccggagc ggacaccgcg catggagcat ctcccgccc gcagcccaag aagagtgtga atggagagtc ggggagcagg aactggaggc tggcggtgga gagcaaggct gggggtgctc tgtgcgcaa tggcgcggtg aggcaagggt acgatggcgc cgccttgagg gtgatcgagg tgcaccgagt gggcaactcc aaagagcact tgcctctgcc cagcagagct ggtcctaccc cttgtgccc cgctctttc gagaggaaaa atgagcgcaa cgccgaggcg aagcgcaaga tggccctggc ccgagagagg aagacagtag agacgtggg catcatcatg ggcaccttca tctctgctg gctgcccctc ttcacgtgtg ctctgttct gccccttgc gagagcagct gccacatgcc caccctgttg ggcgccataa tcaattggct gggctactcc aactctctgc ttaaccccg ctttaacgca tacttcaaca aggactttca aaacgcgtt aagaagatca ttaagtgtaa cttctgcccg cagtga	A	Homo sapiens
2	127	5-HT1A Receptor	NP_000515.1	MDVLSPGQGN NTTSPAPFE TGGNTTGISD VTVSYQVITS LLLGTLI FCA VLGNACVVA IALERSIQNV ANYLIGSLAV TDLMSVLVL PMAALYQVLN KWTLGQVTC LFTALDVLCC TSSILHLCAI ALDRYWAITD PIDYVNRTP RPRALISLTW LIGFLISIPP ILGWRTPEDR SDPDATISK DHGYTIYSTF GAFYIPLLM LVLYGRIFRA ARFRIRKTVK KVEKTGADTR HGASAPAPQPK KSVNGESGR NWRLGVESKA GGALCANGAV RQDDGGALE VIEVHRVGN KEHLPLPSEA GPTPCAPASF ERKNERNAEA KRKMALARER KTVKTLGIIM GTFILCWL FIVALVLPFC ESSCHMPTLL GAIINWLGYS NSLINPVIYA YFNKDFQNAF KKIIRKNCFCR Q	P	Homo sapiens
3	128	5-HT1B Receptor	NM_000863	atggagggaac cgggtgtctca gtgcgctcca ccgcccgcgcg cgggctccga gacctgggtt cctcaagcca acttatctc tgctccctcc caaaactgca gcgccaagga ctacatttac caggactcca tctccctacc ctgaaaagta ctgctgggta tgctattggc gctcatcac ttggccacca cgctctcca tgcctttgtg attgccacag tgaccggag ccggaactg cacaccggg ctactacat gatgcctct ctggcggtca ccgacctgct tgtgtccatc ctggtgatgc ccatcagcac catgtacact gtcacccggc gctggacact gggccagggtg gtctgtgact tctggctgtc gtcggacatc acttgttga ctgctccat cctgcacctc tgtgtcatcg ccctggaccg ctactgggc atcaggagc ccgtggagta ctcagctaaa aggactccca agaggcggc ggtcatgac ggtcgtgtgt ggtcttctc catctctatc	A	Homo sapiens

5-HT1B  
Receptor

128

4

NP\_000854.1

tcgtgcgcg cctttctctg gcgtcaggct aaggccgaag aggaggtgtc ggaatgcgtg  
 gtgaacacgc accacatcct ctacacggtc tactccacgg tgggtgcttt ctacttcccc  
 accctgctcc tcatcgccct ctatggcgcg atctacgtag agcccgctc cggatttttg  
 aaacagacgc ccaacaggac cggcaagcgc ttgacccggg ccagctgat aaccgactcc  
 tccgggtcca cgtctcgggt cactctatt aactcgcggg ttcccgcagt gccagcgaa  
 tccgatatc ctgtgtatgt gaaccaagtc aaagtgcggg tctccgacgc cctgctggaa  
 aagaagaac tcatggcgc tagggagcgc aaagccacca agaccctagg gatcattttg  
 ggagccttta ttgtgtgttg gctacccttc ttcatcatc ccttagtgat gcctatctgc  
 aaagatgcct gctggttcca cctagccatc ttgacttct tcacatggct gggctatctc  
 aactccctca tcaaccccat aatctatac atgtccaatg aggactttaa acaagcattc  
 cataaactga tacgttttaa gtgcacaagt tga  
 NP\_000854.1 MEEPQAQCAP PPPAGSETWV PQANLSSAPS QNCSAKDYIY QDSISLPWKV LLVMLLALIT P  
 LATTLNSAFV IATVYRTRKL HTPANYLIAS LAVTDLLVSI LVMPISTMYT VTGRWTLGOV  
 VCDFWLSSDI TCCTASILHL CVIALDRYWA ITDAVEYSAK RTPKRAAVMI ALVWVFSISI  
 SLPPFFWRQA KAEFEVSECV VNTDHLITYV YSTVGAFYFP TILLIALYGR IYVEARSRL  
 KQTPNRTGKR LTRAQLITDS PGSTSSVTSI NSRVDPVPE SGSPVYVNOV KVRVSDALLE  
 KKKLMAARER KATKTLGIIL GAFIVCWLPF FIISLVMPIC KDACWFHIAI FDFFTWLGYL  
 NSLINPIIYT MSNEFKQAF HKLIRFKCTS

Homo  
sapiens5-HT1D  
Receptor

129

5

NM\_000864

Homo  
sapiens

A

agccaaatgt gtggaggtct gtgggaagag agagccacct agcatgtccc cactgaacca  
 gtgagcagaa ggccttcccc aggagccctc caacagatcc ctgaatgcca cagaacacctc  
 agaggttgg gatcccaaga cctccaggc gctcaagatc tccctgccc tggctcttc  
 cgtcatcaca ctggccacag tccctccaa tgcctttgta tccaccacca tcttactcac  
 caggagctc cacacccctg ccaactacct gattggctcc ctggccacca cgcactctt  
 ggttccatc ttggtaatg ccatcagcat cgcctatacc atcaccaca cctggaaactt  
 tggccaaatc ttgtgtgaca tctggtgtg ccttgacatc acgtgctgca cagcctccat  
 cctgcattc aggaacggctg gccacgggc caccatgatc gccattgtct gggccatctc  
 cagtacaacgc aggaacggctg gccacgggc caccatgatc gccattgtct gggccatctc  
 catctgcatc tccatcccc cgtctcttg gcggcaggcc aaggccacggt aggagatgtc  
 ggactgtctg gtgaacacct ctacatctc tcatcatcct atatggccg atctaccggg ctgcccggaa  
 ctacattccc tcggtgttg tcatcatcct cactctatg gaagcgttc accacggccc acctcatcac  
 ccgcatcctg aatccaccct cactctatg tctgtctgct caactccagc tccatgagg ggcactcgca  
 aggctctgcc tcccctctc ttttcaacca cgtgaaatc aagcttgctg acagtgcctt  
 ctggtgtgag aggtattctg ctgctcgaga aaggaaagcc actaaaatcc tgggcatcat  
 tctgggggccc tttatcatct gctggtgccc cttcttctg gtgtctctg tccctcccat  
 ctgcccggac tccgtctgga tccacccgc cactgtgtt aatgaagagt ttcggcaagc  
 tttaaactcc ctcatcaat caataatcta cactgtgtt aatgaagagt ttcggcaagc  
 tttcagaaa atgtccctt tccggaagcc ctctagtct tattcgatga ggtaaagaaa  
 NP\_000855.1 MSPLNQSAEG LPQEAENRSL NATETSEAWD PRILQALKIS LAVLSVITL ATVLSNAFVL P  
 TTILLTRKLH TPANYLIGSL ATTDLLVSI LVMPISAIYTI THTWNFGQIL CDIWLSSDIT  
 CCTASILHLC VIADRYWAI TDALEYSKRR TAGHAATMIA IWAISICIS IPPLEWRQAK

Homo  
sapiens

P

5-HT1D  
Receptor

129

6

NP\_000855.1

7	130	5-HT1E Receptor	NM_000865	<p>           AQEMSDCLV NTSQISYTIY STCGAFYIPS VLLILLYGRI YRAARNRILN PPSLYGKRFT            TAHLITGSAG SSLCSLNSSL HEGHSHSAGS PLFFNHVKIK LADSALERKR ISAARERKAT            KILGIILGAF IICWLPFFV SLVLPICRDS CWIHPALFDF FTWLGYLNSL INPIIYTVFN            EEFRQAFQKI VPERKAS            atcgaatgtt gagagaagca gtgctctgat ccagctcagg agaaaaagga gcgggttccg            agtgagactt ctggagccag ctggacgtgc cgggttgccc agtgcggcg gcgtgcacgc            accgtccaca agagtctcag tcgcccaggc tggagtgcag cagcacagtc tcacctcatt            gcaacctccg cctcccgggt tcgcgggttc tccgcctcag ctctcctagta gctgggattg            caggcactca ccacatgcc cggctaattt ttgaaattt tagtgagac gggatttcac            catgttggcc atgtgtgtct tgaaccccg accctggatg attgcggcg ctggcctcc            caaagtgtg gaattacag cgaaccttca ctcaagaagaa atgctgtggc cctcccttt            accaacagaa aatggaacac aagagaccac atagctgaac aaattatagc ctcttataa            gtgagaaacc ttcgaggcta catagtttcc agccaaagga aaataaccaa cagcttctcc            acagtgtaga ctgaacaag gaaacatga acatcacaaa ctgtaccaca gagccagca            tggctataag acccaagacc atcactgaga agatgctcat ttgcatgact ctggtgtgca            tcaccacct caccagttg ctgaaacttg ctgtgatcat ggctattggc accaccaaga            agctccacca gctgccaac tacctaattc gtctctggc cgtgacggac ctctgggtg            cagtgtcgt catgcccctg agcatcatct acattgtcat ggatcgctgg aagcttgggt            acttctctg tgaggtgtg ctgagtgtg acatgacctg ctgcacctg tccatctcc            acctctgtg cattgccctg gacaggtact gggccatcac caatgctatt gaatacgcca            ggaagaggac ggcaagagg gccgctga tgatcttac cgtctggacc atctccattt            tcatctccat gccctctg ttctggagaa gccaccgccc cctaaagcct cccctagtc            agtgacacat ccagcacgac catgttatct acaccattta ctccacgctg ggtcgtttt            atatccctt gactttgata ctgattctct attaccggat ttaccacgag gccaaagacc            ttaccagaa aaggggatca agtcggcact taagcaacag aagcacagat agccagaatt            ctttgaag ttgtaaaact acacagactt tctgtgtgtc tgacttctcc acctcagacc            ctaccacaga gttgaaaag ttccatgctt ccacaggat ccccccttc gacaatgatc            tagatcacc aggaagaact cagcagatct ctgacaccag ggaacggaag gcagcacgca            tcctggggt gattctgggt gcattcattt tctcctggct gccatttttc atcaaaagat            tgattgtgg tctgagcatc tacaccgtgt cctcggaagt ggcgacttt ctgacgtggc            tcggttatgt gaattctctg atcaaccctc tgctctatag gagttttaat gaagactta            agctggcttt taaaagctc attagatgcc gagagcatag ttagactgta aaagctaaa            aggcacgact tttccagag cctcatgagt ggaaggggtt aaggggtgca acttattaat            tctgaaacat acttggttca ggagagtttg taagtatgtg tggctctgtt tctgttttg            tttgtttgt ttgttctgt ttgtttgagg attgtattt ggcgtgctgt tttctacctc            tggctctatc tgtgatacat aatttcaaat aaacattatc atacaaaac aaaaaaaaa            aaaaaaaaa         </p>	Homo sapiens
8	130	5-HT1E Receptor	NP_000856.1	<p>           MNITNCTTEA SMAIRPKTIT EKMLICMTLV VTTTLTLLN LAVIMAIGTT KKLHQPNLYL P            ICSLAVTDLL VAVLVMPLSI IYIVMDRWKL GYFLCEVWLS VDMTCCTCSI LHLCVIALDR            YWAITNAIEY ARKRTAKRAA LMILTVMPTIS IFISMPFLFW RSHRRLSPPP SQCTIQHDHV            IYTIYSTLGA FYIPLTLILI LYYRIYHAAK SLYQKRGSRR HLSNRSTDSQ NSFASCKLTQ         </p>	Homo sapiens

9	131	5-HT1F Receptor	NM_000866	<p>TFCVSDFTS DPTTEFEKPH ASIRIPFDN DLDPGERQQ ISSTRERKAA RILGLILGAF ILSLPFFIK ELIVGLSIYT VSSEVADFLT WLGYNLSLIN PLYTSFNEK FKLAFKKLIR CREHT</p> <p>atggatttct taaattcatc tgatcaaaaac ttgacctcag aggaactgtt aacagagaatg A ccatccaaaa ttctgtgtc cctcactctg tctgggctgg cactgatgac acaactatc aactcccttg tgatcgctgc aattattgtg acccggaagc tgcacccatcc agccaattat ttaatttgtt ccttgccagt cacagatttt cttgtggctg tcttggtgat gcccttcagc attgtgtata ttgtgagaga gagctggatt atggggcaag tggctctgtga catttggctg agtgttgaca ttacctgtcg cacgtgctcc atcttgcac tctcagctat agctttggat cggatcagag caatcacaga tgctgttgag tatgccagga aaaggactcc aaagcatgct ggcattatga ttacaatatg ttggattata tctgttttta tctctatgcc tctctattc tggaggcacc aaggaaactag cagagatgat gaatgcata tcaagcacga ccacattgtt tccaccattt actcaacatt tggagctttc tacatccac tggcattgat ttgatccctt tactacaaaa tatatagagc agcaagaca ttataccaca agagacaagc aagtaggatt gcaaaaggagg aggtgaatgg ccaagtctt ttggagagtg gtgagaaaa cactaaatca gtttccacat cctatgtact agaaaagtct ttatctgacc catcacaga ctttgataaa attcatagca cagtgagaag tctcaggtct gaattcaagc atgagaaatc ttggagaagg caaaagatct caggtacaag agaacggaaa gcagccacta cctgggatt aatcttgggt gcatttgtaa tatgttggct tcttttttt gtataaagaat tagttgttaa tgtctgtgac aaatgtaaaa ttctgagaaga aatgtccaat ttttggcat ggcttgggta tctcaattcc cttataaatc cactgattta cacaatctt aatgaagact tcaagaaagc attccaaaag cttgtgcgat gtcgatgtta g</p>	Homo sapiens
10	131	5-HT1F Receptor	NP_000857.1	<p>MDFLNSSDQN LTSEELNRM PSKILVSLTL SGLALMTTII NSLVIAAIV TRKLHPANY P LICSIAVTDF LVALVMPFS IVYIVRESWI MGQVVCIDIWL SVDITCCTCS ILHLSAIALD RYRAITDAVE YARKRTPKHA GIMITIVWII SVFISMPPLF WRHQGTSRDD ECIKHDHIV STIYSTFGAF YIPLALILIL YKIIYRAAKT LYHKRQASRI AKEEVNGQVL LESGEKSTKS VSTSYVLEKS LSDPSTDFDK IHSTVRSILRS EFKHEKSWRR QKISGTRERK AATTGLLILG AFVICWLPFF VKELVNVCD KCKISEMSN FLAWLGYLNS LINPLIYTFI NEDFKKAFQK LVRRC</p>	Homo sapiens
11	132	5-HT2A Receptor	NM_000621	<p>gaattcgggt gagccagctc cgggagaaca gcatgtacac cagcctcagt gttacagagt A gtgggtacat caagtgat caagtgat aactataacc tgtagtacct tctacacctc atctgtcata agttctggt tagacatgga tattctttgt gaagaaaaata cttctttgag ctcaactacg aactccctaa tgcaattaaa tgatgacacc aggtctaca gtaatgactt taactctbga gaagctaaca cttctgatgc atttaactgg acagtctac ctgaaaaatcg aaccacatt tctgtgaaag ggtgcctctc accgtctgtg cttcctttac ttcatctcca ggaaaaaac tggctctgct tactgacagc cgtagtgtatt attctaacta ttgctggaaa catactctgc atcatggcag tgtccctaga gaaaaagctg cagaatgcca ccaactattt cctgatgtca cttgccatag ctgatatgct gctgggtttc cttgtcatgc ccgtgtccat gttaaccatc ctgtatgggt accggtggcc tctgcccagc aagctttgtg cagctgtgat ttacctggac gtgctcttct ccaaggcctc catcatgcac ctctgcgcca tctcgtgga ccgtacgct gccatccaga atccccatcca ccaagccgcg ttcaactcca gaactaaggc</p>	Homo sapiens

atttctgaaa atcattgctg ttgggaccat atcagtaggt atatccatgc caataccagt  
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 aggtgcaggt gagccaagt cacaccactg cctttcctc ctgggcaaca gagtgaacc  
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12	5-HT2A Receptor	NP_000612.1	MDILCEINTS LSSTNSLMQ LNDDTRLYSN DFNSGEANTS DAFNWTVDSE NRTNLSCEGC P	Homo sapiens
132			LSPSCLSLH LQEKWSALL TAVVILITIA GNILVIMAVS LEKKLQNA TN YFLMSLAID	





15	134	5-HT2C Receptor	nm_000868	<p>LMRRTSTIGK KSVQTISNEQ RASKVLGIVF FLFLLMWCPF FITNITLVLC DSCNQTTLQM  LLEIFWIGY VSSGVNPLVY TLFNKTFRDA FGRIYTCNRYR ATKSVKTLRK RSSKIYFRNP  MAENSKFEKK HGIRNGINPA MYQSPMLRS STIQSSSIIL LDLLLLTENE GDKTEEQVSY</p> <p>V</p>	<p>acccgcgcga ggtaggcgct ctggtgcttg cggaggacgc ttcctctctc agatgcaccg A  atctcccgga tactgccttt ggagcggcta gattgctagc cttggctgct ccattggcct  gccttgcccc ttacctgcg attgcataag aactcttctt ctgtctgtac atcgctgtcg  tcggagtcgt cgcgategtc gtggcgctcg tgtgatggcc ttcgtccgtt tagagtagtg  tagttagtta ggggcccaacg aagaagaaa gtagcgat agtgcaag atgctggagg  tggtcagtta ctaagctaga gtaagatagc ggagcgaag gagccaaacc tagccggggg  gcgcacggtc acccaaggga ggtcgactcg ccggcgcttc ctatcgcc gagctccctc  cattcctctc cctccgcga ggcgcgaggt tgcggcgcgc agcgcagc agctcagcgc  accgactgcc gcgggctccg ctggcgaggt gcagcgcagt ccgtttctcg tctagctgcc  gccgcggcga ccgctgcctg gtcttctcc ccgacgctag tgggttatca gctaacaccc  gcgagcatct ataacatagg ccaactgac catccttca aaacaacta aagatgata  tgatgaacct agcctgttaa ttctgtcttc tcaattttaa actttgggtg cttaagactg  aagcaatcat ggtgaacctg aggaatgcgg tgcatctatt ccttggtgac ctaattggcc  tattggtttg gcaatgtgat attctgtga gccagtagc agctatagta actgacattt  tcaataacct cgatgggtga cgcttcaaat tcccagacgg ggtacaaaac tggccagcac  tttcaatcgt catcataata atcatgacaa taggtggcaa catccttgat atcatggcag  taagcatgga aaagaaactg cacaatgcca ccaattactt cttaatgtcc ctgaccattg  ctgatatgct agtgggacta cttgtcatgc ccctgtctct cctggcaatc ctttatgatt  atgtctggcc actacctaga tatttgtgcc ccgtctggat tcttttagat gttttatttt  caacagcgtc catcatgcac cttgcgcta tatcgctgga tcggtatgta gcaatacgt  atcctattga gcatagccgt ttcaattcgc gactaaggc catcatgaag attgctattg  tttgggcaat ttctataggt gtatcagttc ctatccctgt gattggactg agggacgaag  aaaagtggtt cgtgaacaac acgacgtgcg tgctcaacga cccaatttc gttctattg  ggctcttcgt agctttcttc ataccgtga cgattatggt gattacgtat tgctgacca  tctacgttct gcgccgacaa gctttgatgt tactgcacgg ccacaccag gaaccgctg  gactaagtcg gatttctcg aagtgcgtca agaggaatac ggccgaggaa gagaactctg  caaacctaa ccaagaccag aacgcacgc gaagaaagaa gaaggagaga cgtcctaggg  gcaccatgca ggctatcaac aatgaaagaa agcttcgaa agtccttggt attgtttct  ttgtgtttct gatcatgtgg tgccattttt tcattaccaaa tattctgtct gttctttgtg  agaagtcctg taaccaaag ctcatggaag agcttctgaa tgtgtttgtt tggattggct  atgtttgttc aggaatcaat cctctggtgt atactctgtt caacaaaaatt tacgaaaggg  cattctccaa ctatttgcgt tgcaattata aggtagagaa aaagcctcct gtcaggcaga  ttccaagagt tgccgccact gctttgtctg ggaggagct taatgttaac atttatcggc  ataccaatga accggtgatc gagaaagcca gtgacaatga gcccggtata gagatgcaag  ttgagaattt agagttacca gtaaatccct ccagtggtgt tagcgaaagg attagcagt  tgtgagaaag aacagcacag tcttttcccta cggtacaagc tacatatgta ggaataattt  cttctttaat ttttctgttg gtcttaacta atgtaaatat tgctgtctga aaaagtgttt</p>	Homo sapiens
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16	134	5-HT2C Receptor	NP_000859.1	ctaatctctg tatgttatcc actacaggtt ttatgagact tcctattaat ttattaaatt tattaaatgt tgaataaaaa aaaaaaaaaa aaaa VIIIIMTIGG NILVIMAVSM EKHLNATNY FLMSLAIDM AAIVTDIFNT SDGGRFKFPD GVQNPALSI P PLPRYLCPW ISLDVLFSTA SIMHLCAISL DRYVAIRNPI EHSRENSRK AIMKIAIWA ISIGSVPIPI VIGLRDEKV FVNNTCVLN DPNFVLIGSF VAFFILTIM VITYCLTIYV LRRQALMLLH GHTEEPPLGLS LDFLKCKCKRN TAEENSANP NQDNARRRK KKERRPRGTM QAINNERKAS KVLGIVFFVF LIMWCPFFIT NILSVLCEKS CNQKLMKLL NVFVWIGYVC SGINPLVYTL FNKIYRRAFS NYLRCNYKVE KKPPVRQIPR VAATALS GRE LNVNIYRHTN EPVIEKASDN EPGIEMQVEN LELPVPSSV VSEISSV	Homo sapiens
17	136	5-HT4 Receptor	NM_000870	cgggtgcttat ttcctgtaat ggacaaactt gatgctaatt tgagttctga ggagggttct A gggtcagtgga agaaggtggt gctgctcaag tttctctcga cggttatcct gatggccatc ttggggaacc tgctggtgat tgctggtgga ggcagctcag gaaaaataaaa acaaattatt tcattgtatc tcttgctttt gcggtatctgc tgggttcggt gctggtgatg ccctttggtg ccattgagct ggttcaagac atctgattt atggggaggt gttttgtctt gttcggacat ctctggacgt cctgctcaca acggcatcga tttttcacct gtgctgcatt tctctggata ggtattacgc catctgctgc cagcctttgg tctataggaa caagatgacc cctctgcgca tcgcattaat gctgggaggg tgctgggtca tccccacgtt tatttctttt ctccctataa tgcaaggctg gaataacatt ggcataaattg atttgataga aaagaggaaag ttcaaccaga actctaactc tacgtactgt gtcttcatgg tcaacaagcc ctacgccatc acctgctctg tgggtgcctt ctacatccca tttctcctca tgggtgctggc ctattaccgc atctatgtca cagctaagga gcattgcccac cagatccaga tgttacaacg ggcaggagcc tctctccaga gcaggcctca gtccgagac cagcatagca ctcctgcctc gaggacagag accaagcag ccaagacctt gtgcatac atgggttgct tctgctctg ctgggaccca ttctttgtca ccaatattgt ggatccttc atagactaca ctgtccctgg gcagggtggtg actgctttcc tctggctcgg ctatatcaat tccgggttga acccttttct ctacgccttc ttgaataagt cttttagacg tgccttctc atcatcctct gctgtgatga tgagcgctac cgaagacctt ccattctggg ccagactgtc ccttgttcaa ccacaacct taatggatcc acacatgtac taaggagatgc agtgagtggt ggtaggaggt gggagagtca gtgtcaccg ccagcaactt ctcttttggt ggctgctcag ccagtgaca cttaggcccc tgggacaatg accagaaga cagccatgcc tccgaaagag gccaggtcc taagctgctg cttgtgcgag actgcacccg gcattctctt cactgagggc ttctcgctcg ccagtgagc aaccgggtgc tcgctggg	Homo sapiens
18	136	5-HT4 Receptor	NP_000861.1	MDKLDANVSS EEGFGSVEKV VLLTFLSTVI LMAILGNLLV MVAVCWDRQL RKIKTNYFIV P SLAFADLLVS VLVMPFGAIE LVQDIWIYGE VFCLVRTSLD VLLTTASIFH LCCISLDRY AICQPLVYR NKMTPLRIAL MLGGCWVPT FISFLPIQG WNNIGIIDLI EKRFNQNSN STYCVFMVVK PYAITCSVA FYIPFLMVL AYYRIYVTA EHAHQIOMLQ RAGASESRP QSADQSTHR MRTETKAAT LCIMGCFCL CWAPFFVTNI VDPFIDYTP GQVWTAFLWL GYNSGLNPF LYAFLNKSFR RAFLIILCCD DERYRRPSIL GQTVPCSTTT INGTHVLRD AVECGGQWES QCHPPATSPL VAAQPSDT	Homo sapiens
19	138	5-HT6	NM_000871	cccagagcg cccattcacc cccctcacc accctcccg gttccactt ccccgactc A gttccactt	Homo

sapiens

Receptor

Homo sapiens

tgaccggcc	ggagccccc	ccctatctt	gccgcgcgc	ccctccagg	ggctctgctc
ccacccagg	gagcccatcc	gacctctgct	tgacttccc	ccgtctcctt	caggggcctc
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gcagagctga	ccccctgctg	ccatctccag	gccccctacc	tgcagggac	atagctgact
caga	STPAWGAGPP	SAPGGSGWA	AALCVVIALT	AAANSLILAL	ICTQPALRNT
MVPEPGPTAN	SDLMVGLVVM	PPAMLNALYG	RWVLARGLCL	LWTAFDVMCC	SASILNLCLI
SNFFLVLSFT	PLRYKLWTP	LRAIALVLGA	WSLAALASFL	PLLLGHWELG	HARPPVPGQC
SLDRYLLILS	VASGLTFFLP	SGAICFTYCR	ILLAARKQAV	QVASLTTGMA	SOASETLOVP
RLLASLPFVL	DSRRLATKHS	RKALKASLTL	GILLGMFFVT	WLPEFFVANIV	QAVCDICISPG
RTPRPGVES	CNSTMNPITY	PLFMRDFKRA	LGRFLPCPRC	PRERQASLAS	PSLRTSHSGP
LFDVLTWLGY	PLPLPPDS	DSDAGSGGSS	GLRITAQLLL	PGEATQDPPL	PTRAAAAVNF
RPGLSLQQVL	RPHPLIGIPTN				
FNIDPAEPEL					

21	139	5-HT7 Receptor	NM_000872	ccatgggagcggcacacgcgggcgatg atggacgtta acagcagcgg ccgcccggac A ctctacgggc acctccgctc ttctctcttg ccagaagtgg ggcgcggtg gcccgacttg agccccgag gtggcgccga ccgggtcgcg gctctctggg cgccgcacct gctgagcgag gtgacagcca gccggcgccg cactctgggac ggcggcgccg acaatgcctc cggctgtggg gaacagatca actacggcag agtcagaaaa gtgtgatcg gctccatcct gacgctcatc acgtgtctga cgatcgggg caactgcctg gtgtgatct ccgtgtgctt cgtcaagaag ctccggcagc cctccaaacta cctgacgtg tccctggcg tggcgacct ctcggtggct gtggcggtca tgcctctcgt cagcgtcacc gacctcatcg ggggcaagt gatctttgga cactttttct gtaatgtctt catcgccatg gacgtcatgt gctgcacggc ctcgacatcg acctgtgctg tgatcagcat tgacaggtac cttgggatca caaggccct cactacacct gtgaggcaga atgggaatg catggcgaag atgattctt ccgtctggct tctctccgct tccatcacct tacctccact ctttgatgg gctcagaatg taaatgata taaggtgtgc ttgatcagcc aggaactttg ctatacgatt tactctaccg cagtggcatt ttatatcccc atgtccgtca tgccttttcat gtactaccag atttacaagg ctgccaggaa gagtgtgctc aaacacaagt ttctgtgctt cctctgagtg gagccagaca cggtcatcgc cctgaatggc atagtgaagc tccagaagga ggtggaagag tgtgcaaac ttctgagact cctcaagcat gaaaggaaaa acatctccat ctttaagcga gaacagaaag cagccaccac cctggggatc atcgctgggg cctttaccgt gtgctggctg ccatttttcc tctctcgac agccagaccc ttcatctgtg gcaactctcg cagctgcatc ccactgtggg tggagaggac atttctgttg ctaggctatg caaactctct cattaacctt ttatatatag ccttcttcaa ccgggacctg aggaccacct atgcagcct gctccagtc cagtaccgga atatcaacc gaagctctca gctgcaggca tgcataagc cctgaagctt gctgagaggc cagagagacc tgagtgtgtg ctacaaaaatg ctgactactg tagaaaaaa ggtcatgatt catgattgaa agcagaacaa tgagag	Homo sapiens
22	139	5-HT7 Receptor	NP_000863.1	MDVNSSGRP DLYGHLRSFL LPEVGRGLPD LSPDGGADPV AGSWAPHLLS EVTASAPTW P DAPPDNASGC GEQINYGRIE KVVIGSILT ITLTIAGNC LVVISVCFVK KLRQPSNYLI VSLALADLSV AVAMPFVSU TDLIGGKWI FGHFFCNVFA MDVMCCTASI MTLCVISIDR YLGITRPLTY PVRQNGKMA KMILSVWLLS ASITLPPPLF WAQNVNDDKV CLISQDFGYT IYSTAVAFYI PMSVLMFYI QIYKAARKSA AKHKFPGFPR VEPDSVIALN GIVKLQKEVE ECANLSRLK HERKNISIFK REQKAATLG IIVGAFVTCW LPFFLLSTAR PFICGTSCSC IPLWVERTFL WLGYANSLIN PFYIAFFNRD LRTTYRSLQ CQYRNINRKL SAAGMHEALK LAERPERPEF VLQADYCRK KGHDS	Homo sapiens
23	272	Adenosine A1 Receptor	NM_000674	atgagtgtca gaagtgtgaa ggtgctctgt tctgaatccc agagcctcct ctcctctgt A gaggtcgga ggtgaggaag ggtttaacct cactggaagg aatccctgga gtagcggtt cctgaaggcg tcgaggtgtg ggggcaacttg gaggcaactg gagcagacc gggagctctg ccagctttgg tgaccttggg ccgggctggg agcgtctcgg cggagacgg aggactatga gctgcggcg gtgtgccaga gcccgccca gccctacgag cgcgggcccg agctctgttc cctgggaactt tgggcactg cctctgggacc cctgcccggc agcaggcagg atggtgttg cctcggtccc cttggtgccc gtctgtgat gtgcccagcc tgtgcccgc atgcccctt ccatctcagc ttccaggcc gctacatcg gcatcgaggt gctcatcgcc ctggtctctg tgccccggaa cgtgctggtg atctggcgcg tgaagggtgaa ccaggcgctg cgggatgcca	Homo sapiens

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 aataaaaaac tgtgaacctt

Homo

Adenosine A1 NP\_000665.1 MPPIISAFQA AYIGIEVLIA LVSVPGNVLV IWAIVKNQAL RDATFCFIVS LAVADVAVGA P



26	Adenosine A2a Receptor	NP_000666.2	MPIMSSVYI TVELAIAVLA ILGNVLVCWA VMLNSNLQNV TNYFWVSLAA ADIAVGVLAIP	Homo sapiens
273			agtgacaaaag ctgggatcaa ggatagggag ttgtaacaga gcagtgccag agcatgggccc caggtccag gggagaggtt gggctggca ggccactggc atgtgctgag tagcgagag ctaccagtg agaggcttg tctaactgcc ttctctcta aggggaatgt tttttctga gataaataa aaacgagcca catcgtgttt taagctgtc caaatgaaaa aaaaaaaaaa aaa	
27	Adenosine A2b Receptor	NM_000676	PFAITISTGF CAACHGLFI ACFLVLTQS SIFSLIAIAI DRYAIRIPL RYNGLVGTGR AKGIIAICWV LSFAIGLTPM LGWNNGQPK EGKNSQCG EGQVACLFED VVPMNMYVF NFFACVLVPL LMLGVYLRI FLAARQLKQ MESQPLPER ARSTLQKEVH AAKSLAIIVG LFALCWLPLH IINCFTFCP DCSHAPLWLM YLAIVLSHTN SVNPFYIY RIREFRQTFR KIIRSHVLRQ QEPFKAAGTS ARVLAHGS DGEQVSLRNG HPPGVWANGS APHPPERENG YALGLVSGS AQESQNTGL PDVELLSHEL KGVCPEPPGL DDPLAQDGAG VS gggcaatttg ttagttatcc gccgccacca agacgcgga cggcgccctgg accggagggg A ccccgcgcg ggcggaactt tgggtcggg cgagtgggtg gtgctccgcc cagccccgaga cgggcggcg cgcgggcca tgggtgccgc cttctggccg cggggggccc cgaccctgg gtcccgcca ccagcgcgc agccccgag ctcagaagcg gcaggcgag gcgcgggtccg ggcgtatgg ccattgccc cgggtctcac ggggtgcc ctcgcccc gcgccttcgg tagggggcg cgggggcca gctggcccc ccatgctgtt ggagacacag gacgcctgt acgtggcgct ggagctgtc atcgccgcg tttcgggtgg gggcaactg ctggtgtcg ccgcggtggg cagggcgaac actctgcaga cgcccccaa ctacttctg gtgtccctgg ctggggcga cgtggccgtg gggctcttcg ccattccctt tgccatcacc atcagccctg gcttctgcac tgacttctac ggtgcctct cctcgcctg atctgtgtg gtgctcacgc agagctccat cttcagcctt ctggcgtgg cagtcgacag atactggcc atctgtgtcc cgctcaggt taaaagtgt gtacggggga cccgagcaag aggggtcatt gctgtcctct gggctcctgc ctttggcatc gattgactc cattctctgg gtggaacagt aaagacagt ccaccaaaa ctgcacagaa ccttgggatg gaaccacgaa tgaagagctg tgccttgta agtgtctct tgagaatgtg gtccccatga gctacatggt atatttcaat tcttttgggt gtgttctgc cccactgctt ataatgctgg tgatctacat taagatctt ctggtggcct gcaggcagct tcagcgact gagctgagtg accactcgag gaccaccctc cagcgggaga tccatgcagc caagtcactg gccatgattg tgggatttt tgccctgtgc tggttacctg tgcattgctg taactgtgtc actcttttcc agccagctca gggtaaaaat aagcccaagt gggcaatgaa tatggccatt cttctgtcac atgccaattc agttgtcaat cccattgtct atgcttaccg gaaccgagac ttccgtaca cttttcaca aattatctc aggtatcttc tctgccaagc agatgtcaa agtgggaatg gtcaggctgg ggtacagcct gctctcggtg tgggcctatg atctaggctc tcgcctcttc caggagaaga tacaatcca caagaacaa agaggacag gctggttttc attgtgaaag atagctacac ctcacaaga atggactgc ctctcttgag cacttccctg gagctaccac gtatctagct aatatgtatg tgcagtagt aggtccaaag gattgacaaa tatatttatg atctattcag ctgcttttac tgtgtggatt atgccaacag ctggaatgga ttctaacaga cttctttgtt tttaaaagtc tgccttgttt atgggtggaaa attactgaaa ctattttact gtgaacagat gtgaactatt ataattgaaa tactttttaa ctttagaggca atggaaaaat aaaagttgac tgtactaaaa atg	Homo sapiens



28	274	Adenosine A2b. Receptor	NP_000667.1	<p>MLETQDALY VALELVIAL SVAGNVLVCA AVGTANTLQT PTNYFLVSLA AADVAVGLEFA P  IPFAITISLG FCTDFYGCLE LACFVLVLTQ SSIFSLLAVA VDRYLAICVP LRYKSLVTGT  RARGVIAVLW VLAFGIGLTP FLGWSKDSA TNNCTEPWDG TTNESCCIVK CLFENVVPMMS  YMYFNFFGC VLPPLLLMLV IYIKIFLVAC RQLQRTLEMD HSRITLQREI HAAKSLAMIV  GIFALCWLFP HAVNCVTLFQ PAQGNKPKW AMNMAILLSH ANSVVNPIVY AYNRDRFRT  FHKIISRYLL QADVKSNG QAGVQPALGV GL</p>	Homo sapiens
29	275	Adenosine A3 Receptor	NM_000677	<p>atctttgctg caaaggctgg gtaatggctg tgctcagcaa agcgtcaact cgtgcaagaa A  cttagcagga atagttctgg ctaagggttag gaggctgcca ccaaaagtctc tttttgttct  ctctgcttct cccgtttgcc tcttatcat gagatctttt tgctaagctg gcagaaagat  tgcatagtca gtgcttcacg ctctgctccc accgtatcct gcaactgctc ctggtccctg  aatgaatgaa ctctgatacc caatcttgctc tcgagccttc tctatgccac tcatggctcc  tcttctgctc ttcccatctt ttgtctgaga gttctgagct ctgtacttcc tcttgcccc  tctcaacttcc tgaacacccc ctgaagaggg ttgcttatct tgatggaact caaaaagcca  aaaagctgca ggcagagggc ttgaggacat ctgtttgggg aactaagagc agcagcactt  tcagattcag tccatataga gctgtctac agcattctgg aaacttgagg atgtgcggtg  cataaagggg ctggaagtga cccacctgtg atgagcctt tctaaggaga agggtttcca  agagatcacc ccaccagaa agggtaggaa tgagcaagtt gggaatttta gactgtcaact  gcacatggac ctctgggaag acgtctggcg agagctaggc ccaactggccc tacagacgga  tcttgctggc tcacctgtcc ctgtggaggt tccccggga aggcgaagatg cccaaaca  gcaactgctct gtcattggcc aatgttaact acatcacat ggaaattttc attggactct  ggccatagt gggaacgtg ctggtcatct gcgtgggtcaa gctgaacccc agcctgcaga  ccaccacctt ctatttcatt gtctctctag ccttggtgta cattgctgtt ggggtgctgg  tcatgacctt ggccattgtt gtcagcctgg gcatacaaat ccaactctac agctgacctt  ttatgacctg cctactgctt atctttacc acgcctccat catgtccttg ctggccatcg  ctgtggaccg atacttgcg gtcaagctta ccgtcagata caagagggtc accactcaca  gaagaatatg gctggccctg ggcccttgct ggctggtgtc attcctgggt ggattgaccc  ccatgttttg ctggaacatg aaactgacct cagagtaacca cagaaatgtc accttccctt  catgccaatt tgtttccgtc atgagaatgg actacatgggt atacttcagc tctctacct  ggattttcat ccccttggtt gtcattgctg ccatctatct tgacatcttt tacatcattc  ggaacaaact cagtctgaac ttatctaaact ccaaaagagc aggtgcattt tatggacggg  agttcaagac ggctaagtcc ttgtttctgg ttcttttctt gtttgctctg tcatggctgc  ctttatctat catcaactgc atcatctact ttaatgggtg ggtaccacag cttgtgctgt  acatgggcat cctgctgtcc catgccaact ccatgatgaa ccctatcgtc tatgctata  aaataaagaa gttcaaggaa acctacctt ttgacctcaa agcctgtgtg tctgacctc  cctctgattc ttggacaca agcattgaga agaattctga gtagttatcc atcagagatg  actctgtctc attgaccttc agattcccc tcaacaaaca cttgagggcc tgtatgctgt  ggccaaggga tttttacatc cttgattact tccactgagg tgggagcatc tccagtgtc  cccaattata tctccccac tccactactc tcttcttcca ctctatttt ccttgtctc  ttctcttaa ttcaagtgtt tggaggcctg acttggggac aactattat tgatatatt  gtctgtttc cttcttcca atagaagaat agtcatgga gcctgaaggg tgcctagtgtg  acttactgac aaaaggctct agttgggctg acatgtgtg tgggtgtgac tcatctccat</p>	Homo sapiens

30	275	Adenosine A3 NP_000668.1 Receptor	gccattgtgg aattgagcag agaacctgct ctgaggagat gcctagaaga tggtgggaac agaagaaata aactgagttt aagggggact taaactgctg aattcacctg tggatgtttt tagataaata aaagtaata g MPNNSTALS L ANVTYITMEI FIGLCAIVGN VLVICVVKLN PSLQTTTFYF IVSLALADIA P VGLVMPPLAI VVSLGITHF YSCLEMTCLL LIFTHASIMS LLAIAVDRL RVKLTVRKYR VTTHRIWLA LGLCLVSLF VGLTPMFCWN MKLTSEYHRN VTFLSCQFVS VMMDYMYF SFLTWFIFL VMCALYLDI FYIIRNKLSL NLSNSKETGA FYGREFTAK SLFLVLELFA LSWLPLSIIN CIIYFNGEVP QLVLYMGILL SHANSMMNPI VYAYKIKKFK ETYLLILKAC VVCHPSDSLD TSIEKNSE	Homo sapiens
31	309	Melanocortin NM_000529 2 Receptor (adrenocorti cotropic hormone) (MC2R)	atgaagcaca ttataactc gtatgaaaac atcaacaaca cagcaagaaa taattccgac A tgtcctcgtg tgggtttgcc ggaggagata tttttcacaa tttccattgt tggagttttg gagaatctga tcgtcctgct ggctgtgttc aagaataaga atctccaggc acccatgtac tttttcatct gtagcttggc catatctgat atgctgggca gctatataa gatcttgaa aatatcctga tcatattgag aaacatgggc tatctcaagc cagctggcag ttttgaacc acagccgatg acatcatcga ctccctgttt gtccctccc tgcttggtc catcttcagc ctgtctgtga ttgctgcgga ccgctacatc accatcttcc acgcactgcg gtaccacagc atcgtgacca tgcgcgcgac tgtggtgtgtg cttaacggtca tctggacgtt ctgcacgggg actggcatca ccatggtgat ctctcccat catgtgccca cagtgtacac cttcacgtcg ctgttcccg ctagctgtgt ctctacatc cccagagcca acatgaaagg ggccatcaca cgatccacaca ccaggaaagt ctccacctc tgctggggcc ccttgtgtct tcatgtctc ctgaccatcc tgcctggggt ctctcatctc taacctctac tgcgctgct acatgtctct cttccaggtg ttgatgacat tctgcccagg taacctctac tgcgctgct acatgtctct cttccaggtg aacggcatgt tgatcatgtg caatgcctg attgacctc tcatatgc cttccggagc ccagagctca gggacgcatt caaagagatg atcttctgca gcaggtactg gtag MKHIINSYEN INTARNSD CPRVLPPEI FFTISIVGL ENLIVLLAVF KNKNLQAPMY P FFICSLAISD MLGSLYKILE NILILRNMG YLKPRGSFET TADDIISLF VLSLLGSIFS LSVIAADRYI TIFHALRHS IVTMRRTVV LTVIWTFCTG TGITMVTFSH HVPTVITFS LFPLMLVFIL CLYVHMFLLA RSHTRKISTL PRANMKGAT LTILLGVFIF CWAPFVLHVL LMTFCPSNPY CACYNLSLFQV NGMLIMCNAV IDPFIYAFRS PELRDAFKKM IFCSRYW	Homo sapiens
32	309	Melanocortin NP_000520.1 2 Receptor (adrenocorti cotropic hormone) (MC2R)	tcctgccggc cgctcgttct gtgcccccg cccggccacc gacggccgag cgttgagatg A actttccgag atctcctgag cgtcagtttc gagggaacccc gcccgagacag cagcgcaggg ggctccagcg cgggcggcg cgggcggcg cgggcggcg cggccccctc ggagggcccg gcggtggcg gctgcccgg ggcgcggcg ggcgcggcg cgtggtggg cgcagggcagc ggcaggaca accgagctc cggcggggag cgggcggcg cgggcggcg cggcgacgtg aatggcacgg cggccgtcgg gggactggtg gtgagcgcgc agggcgtggg cgtgggcgtc ttcctggcag ccttcatcct tatggccgtg gcaggtaacc tgcctgtcat cctctcagt gcctgcaacc gccacctgca gaccgtcacc aactattca tctgaaacct ggcgtggcc gacctgctgc tgagcgccac cgtactgccc ttctcgccca ccatggaggt tctgggcttc tgggccccttg gccgcctt ctgcgacgta tgggcgcgg tggacgtgct gtgctgcacg gcctccatcc ttagcctctg caccatctcc gtggaccggt acgtggcgct gcgccactca	Homo sapiens
33	376	Alpha 1d- adrenoceptor		Homo sapiens

34	Alpha 1d- adrenoceptor	NP_000669.1	ctcaagtacc cagccatcat gacgagcgc aagcgggcgc ccactctggc cctgctctgg gtcgtagccc tggtagtgtc cgtagggccc ctgctgggtc ggaaggagcc cgtgccccct gacgagcgct tctgcggtat caccgaggag gggggctacg gtgtcttctc ctccgtgtgc tcctttacc tgcccatggc ggtcatcggt gtcatgtact ccgcgtgta cgtgggtcgcg cgagcacca cgcgcagcct cgagcaggc gtcaagcgcg agcgaggcaa ggcctccgag gtggtgctgc gcatccactg tcgcggcgcg gccacgggcg ccgacggggc gcacggcatg cgagcgcca agggccacac ctccgcagc tgcgtctccg tgcgctgct caagtctctc cgtgagaaga aagcgggcaa gactctggcc atcgctgtgg gtgtcttctg gtctgtctgg ttccctttct tctttgtctt gccgctcggc tccttggtcc cgcagctgaa gccatcgag ggcgctttca aggtcatctt ctggctcggc tacttaaca gctgcgtgaa ccgctctatc taccctgtt ccagccgga gttaagcgc gccttctctc gtctctcgc ctgccagtgc cgtcgtcgc ccgcccgcg cctctctgg cgtgtctacg gccaccactg gcgggctctc accagcgccc tgcgcaggga ctgcgcccgc agttcgggcg acgcgcccc cggagcgccg ctggccctca cgcgctccc cgaccccgac ccgaaacccc caggcacgcc cgagatgcag gctccggtcg ccagcgtcg aaagccacc agcgccttcc cgcagtggag gctgctgggg ccgttcgga gaccacgac ccagctgcg gccaaagtct ccagcctgtc gcacaagatc cgcccgggg gcgcgcagc gcgagggca gctgcgccc agcgtcaga ggtggaggct gtgtccctag gcgtccaca cgaggtggc gagggcgcca cctgccaggc ctacgaattg gccgactaca gaaacctacg gagaccgat atttaaggac ccagagcta ggcgcggag tgtgtgggc ttgggggtaa gggggaccag agagcgggc tgggtgtcta agagccccg tgcaaatcgg agaccggaa actgatcagg gcagctgctc tgtgacatcc ctgaggaact gggcagagct tgaggtgga gccctgaaa ggtgaaaagt agtggggccc cctgctggac tcaggtgccc agaactctt tcttagaagg gagaggtgc gggctccgtg gggcctttg ctcccaatcc ctatttgaga aacactgccc catcctccat gccctgaacc ctgagttagc agcccaagc atggccagg aggcctgccc SGEDNRSSAG EPGSAGAGGD VNGTAAVGGI VWSAQGVGVG VFLAAFILMA VAGNLLVILS VACNRHLQTV TNYFIVNLAV ADLLSATVL PFSATMEVLG FWAFGRAFCD VWAAVDVLCC TASILSLCTI SVDRYVGVHR SLKYPAMTE RKAAAILALL WVVALVSVG PLLGWKEPVP PDERFCGITE EAGYAVFSSV CSFYLPMAVI VMYCRVYV ARSTTRSLEA GVKRERKAS EVVLRHCRG AATGADGAHG MRSAGHTFR SSLSVRLKLF SREKKAATL AIIVGVFVLC WPFEEFVLPL GSLFPQLKPS EGVFKVIFWL GFNSCNVPL IYPCSSREFK RAFLRLRQC CRRRRRRRPL WRVYGHWRRA STSGLRQDCA PSSGDAPPGA PLALTALPDP DPEPPGPEM QAPVASRRKP PSAPREWRLI GPFRRPTTOL RAKVSSLSHK IRAGGAQRAE AACARSEVE AVSLGVPHEV AEGATCQAYE LADYSNLRET DI	Homo sapiens
35	Alpha 1b- adrenoceptor	NM_000679	aggcaggaga cgtgctgccc gctgggctgc ccgggggaga tgactcctgc caggaggcgc A cctctgggaa gaagaccacg ggggaagcaa agtttcaggc cagctgagga gccttcgcgc cagcccttcc gagcccaatc atcccccagg ctatggaggc cggactctaa gatgaatccc gacctggaca ccggccacaa cacatcagca cctgccact ggggagagt gaaaaatgcc aacttcactg gccccaacca gacctgagc aactccacac tgccccagct ggacatcacc aggcccatct ctgtgggcct ggtgctgggc gccttcatcc tctttgccat cgtgggcaac	Homo sapiens

Homo  
sapiensHomo  
sapiens

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Alpha 1b-  
adrenoceptor

NP\_000670.1

377

36

Alpha 1c-  
adrenoceptor

NM\_000680

379

37

38	Alpha 1c- adrenoceptor	NP_000671.1	<p>           ccaaccgccg gcaccgggtga acatttccaa ggccattctg ctccgggtga tcttgggggg            cctcattctt ttcgggggtg tgggtaacat cctagtgatc ctctccgtag cctgtcacccg            acacctgcac tcagtcacgc actactacat cgtcaacctg gcggtggccg acctcctgct            cacctccacg gtgctgccct tctccgcat cttcgaggtc ctaggctact gggccttcgg            cagggtcttc tgcaacatct gggcggcagt ggatgtgctg tctgacacg cgtcccatcat            gggcctctgc atcatctcca tcgaccgta catcgcgctg agctaccgc tgcgtaccc            aaccatcgtc accagagga ggggtctcat ggctctgctc tgcgtctggg cactctccct            ggtcatatcc attggacccc tgttcggctg gaggacgccc gccccgagg acgagacctat            ctgccagatc aacgaggagc cgggctacgt gctcttctca gcctgggct ccttctacct            gctctggcc atcatcctgg tcatgtactg ccgctctac gtggtggcca agaggagag            ccggggcctc aagtctggcc tcaagaccga caagtcggac tcggagcaag tgacgctccg            catccatcgg aaaaacgccc cggcaggagg cagcgggatg gccagcga agaccaagac            gcacttctca gtgaggctcc tcaagtctc ccgggagaa aaagcggcca aaacgctggg            catcgtggtc ggtgcttcg tctctgctg gctgctttt tcttagtca tggccattgg            gtcttcttc cctgatttca agcctctga aacagttttt aaatagtat tttggtcgg            atatctaac agctgcatca accccatcat ataccatgc tccagccaag agttcaaaaa            ggcctttcag aatgtcttga gaatccagt tctccgaga aagcagtctt ccaaacatgc            cctgggctac accctgacc cggccagcca ggcgtggaa gggcaacaca aggacatggt            gcgcatcccc gtggatcaa gagagacct ctacaggatc tccaagacgg atggcgtttg            tgaatggaaa ttttctctt ccatgcccc ggatctgccc aggattacag tgtccaaaga            ccaatcctcc tgtaccacag ccgggtgag aagtaaaagc ttttggagg tctgctgctg            ttagggccc tcaacccca gcttgaca gaacatcaa gtccaaacca ttaaggtcca            caccatctcc ctcagtaga acggggagga agtctaggac aggaagatg cagaggaaaag            ggaataatc ttaggtacc acccacttc ctctcggaa gcccagctct tcttgaggga            caagacagga ccaatcaaa aggggacctg ctgggaatgg ggtgggtggt agaccacat            catcaggcag cggtagggc acagggaaga gggagggtgt ctcaacaacca accagttcag            aatgatacgg aacagcatt cctgcagct aatgcttct tggtaactct gtgccactt            caacgaaaac caccatggga aacagaatt catgcacaat ccaaaagact ataaatatag            gattatgatt tcatcatgaa tattttgag acacactcta agttggagc tattcttga            tggaagtga gggattttat tttcaggctc aacctactga cagccacatt tgacatttat            gccggaattc         </p>	Homo sapiens
379	Alpha 1c- adrenoceptor	NP_000671.1	<p>           SSNCTOPPAP VNISKAILLG VILGGLILFG VLGNILVILS VACHRLHSV P            THYYIVNLAV ADLLTSTVL PFSAlFEVLG YWAFGRVFCN IWAADVLLCC TASINGLCII            SIDRYIGVSF PLRYPTIVTQ RRLMALLCV WALSLVISIG PLFGWRQPPAP EDETICQINE            EPGYVLFSAI GSFYLPILAI LVMYCRVYV AKRESRLKS GLKTDKSDSE QVTLRIHRKN            APAGSGMAS AKTKTHFSVR LLKFSREKKA AKTLGIVVGC FVLCWLPEFL VMPIGSFFPD            FKPSSETVFKI VFWLGLNSC INPIIYPCSS QEFKAFQNV LRIQCLRRKQ SSKHALGYTL            HPPSQAVEGQ HKDMVRIPVG SRETFYRISK TDGVCWEKFF SSMRPGSARI TVSKDQSSCT            TARVRSKSLF EVCCCVGPST PSLDKNHQVP TIKVHTISLS ENGEEV            gcgctcggcg ccacacaggc ggacgcccag gagaacccct gcctccgtcg cggctcctgg A            agagctgac gtccacctgc cccgccccgc ctgaggacgg ggtgacctc atgcggcccc         </p>	Homo sapiens
39	Alpha 2a- adrenoceptor	NM_000681		

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40	Alpha 2a- adrenoceptor	AAA51664.1	gctcacaaaa ggttaaatgga tgggggttac ctagccctgg ctaattcccc ttccattccc aactctctct ctctttttga agaaaaatgc taaggcgagc ctgctctgcc ctccccatcc cccgctgtaa atatacacta tttttgatag cacacatggg gcccccatat ctcttggect tggttttgat gttgaaatcc tggccttggg agagatgcct tccaggcaga cacagctgtc tggttcaggc caagccctt tgcattgcaa gccctttctg gtgttatgaa gtccctctat gtcgtcgttt tcaccagcaa ctggtgactg tccctcgac acggacctgc tttgagattt cctgacaggg aaagatttc tgtccatttt tttcctgtgc ctaacagcat aattgccttt tcctatgtaa atattatgat ggtgatatcaa gacataagta aatgagcctt tctgcctcac atcagccctg tgtataaagc cattattctc tgcagcactg tttgccccag taactcactt taaaacctct cttccagtg tccctctctc cctccaggg ccaactgctg aagaagaata tgtatgtttc tatcttat gctgtgtgc cctcctgcc ccgaaatgc tgactatggg gaaatctttt agctgctgtt tttagactcc aaggagtga aattatgtg aagaagcaaa cctgatacaa ttgcccag gttaacagtt tgaagaagaca aatgggctg ccaaacgtga cagtttcttc ccaagagct gtaggtatc aaatgttgt cctttcccc cccgtgctt ttctggtga gatcatgtca ttgatgaact gccaaagtca ggggaggagg gcagagactt tgtgtttaca tctgcatttc tacatgttt agacagagac aatttaaggc ctgcactctt atttcaacta agaaaaacta atgtcagcac atgtgtctaa tgacagtga tttttttta ataaaaaaag tttacagatc aaatgtgaaa taaatatgaa tggagtgtc aaa MSLQPDAGN ASWNGTEAPG GGARATPYSL QVTLTLVCLA GLMLLTVFG NVLVIIVFT P SPALKAPQNL FLVSLASADI LVATLVIPFS LANEWGMYWY FGKTWCEIYL ALDVLFTSS IVHICAIISLD RYWSITQAE YNLKRTPRRI KAIITCWVI SAVISFPPLI SIEKKGGGGG QPAEPRCEI NDQKWYISS CIGSFFAPCL IMILVYVRP QIAKRTRVP PSRRGPDAVA APPGTERRP NGLGPERSAG PGGAEEPLP TQINGAPRDTDA LDLEESSSD HAERPPGPRR PERGPRGKGK ARASQVKPGD SIRGARGRR GSGRRLOGRG RSASGLPRRR AGAGGQNLK RFTEVLAVI GVFEVVCWFPF FTYTLTAVG CSVPRTLKF FWFEGYCNSS LNPVIYTFN HDFRAFKKI LCRGDRKRIV	Homo sapiens
41	Alpha 2b- adrenoceptor	NM_000682	atggaccacc aggacccta ctccgtgcag gccacagcgg ccatagcggc ggccatcacc A ttcctcattc tctttaccat ctteggcaac gctctggtca tcttggtgtg ttgaccagc cgtcgtgtgc gcgccccca gaacctgttc ctggtgtcgc tggccgcgcg cgacatcctg gtggccacgc tcatcatccc tttctcgtg gccaaagagc tctgggcta ctggtacttc cggcgacgt ggtgcaggt gtacctggcg ctgcacgtgc tcttctgcac ctgctccatc gtgcacctgt gcgcatcag cctggaccgc tactgggccc tgagccgcgc gctggagtac aactccaaag caccaccgcg ccgcatcaag tgcacatccc tcaactgtgtg gctcatcgcc gcgtcatct cgtgcccgc cctcatctac agggcgagcc agggccccc gccgcgcggg cgccccagt gcaagctcaa ccaggaggcc tgggtacatcc tggcctccag catcggtatc ttctttgtc cttgcctcat catgatcctt gtctacctgc gcactacct gatcgcaaa cgagcaacc gcagaggtcc cagggccaaag ggggggcctg gccaggtgtg gtccaaagcag cccagaccg accatggtg ggctttggc tcagccaaac tgcagccctt ggcctctgtg gttctgtcca gagaggtcaa cggacactcg aagtccactg gggagaagga ggaaggggag accttgaag atactgggac cgggcccctg ccaccagttt gggctgcctt tcccaactca ggccagggcc agaaggaggg tgtttgtggg gcactctccag aggatgaagc tgaagaggag	Homo sapiens

gaagaggagg aggaggagg ggaagagtgt gaacccagg cagtgccagt gtctccggcc  
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 gctattttat caataaagg tattttgtaa taag

Homo

NP\_000673.1 MDHQPYSVQ ATAAIAAAIT FLILFTIFGN ALVILAVLTS RSLRAPQNLF LVSLAAADIL P

Alpha 2b-

388

42



adrenoceptor	Alpha 2c- adrenoceptor	389	NM_000683	Alpha 2c- adrenoceptor	adrenoceptor
VATLIIPFSL ANELLGYWYF RRTWCVEVYLA LDVLFCTSSI VHLCAISLDR YWAVSRALEY	ctgcaggcgg ccttgagggg ggcgcctctcg ccgagcgcg ccgcccgcgc ggcgcccccg			ctgcaggcgg ccttgagggg ggcgcctctcg ccgagcgcg ccgcccgcgc ggcgcccccg	sapiens
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EEEEEEEEEC EPQAVPVSPA SACSPLQQP QGSRVLATLR GQVLLGRGVG AIGGQWRRR	gcgggcgcg agctccggcg agcgaggcg cggcgccacg gcaagcggtg accgcggggg			gcgggcgcg agctccggcg agcgaggcg cggcgccacg gcaagcggtg accgcggggg	sapiens
AHVTREKRT FVLAVVIGVF VLCWFPEFFS YSLGAICPKH CKVPHGLFQF FEWIGYCNS	gcgcccgcgc cgggagcagc cggaggactc ggcggcgcg cggcgcccc cccgggaaag			gcgcccgcgc cgggagcagc cggaggactc ggcggcgcg cggcgcccc cccgggaaag	sapiens
INPVIYITFN QDFRFRRI LCRPWTQTAW	taaaagtgtg gacggaggga ggcgcgggg cggcccggga ggagcgggcg cggcgcccc			taaaagtgtg gacggaggga ggcgcgggg cggcccggga ggagcgggcg cggcgcccc	sapiens
	ggcgcgcgca gccctagccg ccggatggga ggcgagcgg ccggggcgcc cgcgccttgt			ggcgcgcgca gccctagccg ccggatggga ggcgagcgg ccggggcgcc cgcgccttgt	sapiens
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44

Alpha 2c-  
adrenoceptor

389

NP\_000674.1

Homo  
sapiens

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 ttgtaa

P

45

Bradykinin  
B1 Receptor

599

NM\_000710

Homo  
sapiens

ctgtgcatgg catcatcctg gccctcctca gactccaat cctccaacca gagccagctc A  
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 cc

A

46	599	Bradykinin B1 Receptor	NP_000701.1	MASSWPPLEL QSSNQSQLEP QNATACDNAP EAWDLLHRVL PTFIISICFF GLIGNLFVLL P VFLLPRRQIN VAEIYLANLA ASDLVFVLGL PFWAENIWNQ FNPWFGALLC RVINGVIKAN LFISIFLVA ISQDRYRVLV HPMASGRQOR RRQARVTCVL IMVVGGLLSI PTFLLRSIQIA VPDLNITACI LLLPHEAWHE ARIVELNILG FLLPLAAIVE FNYHILASLR TREEVSRTRV RGPKDSKTTA LILTLVAFL VCMAPYHFEA FLEFLFQVQA VRGCFWEDFI DLGLQLANFF AFTNSSLNVP IYFVGRLEP TKWELYKQC TPKSLAPISS SHRKEIFQLF WRN	Homo sapiens
47	600	Bradykinin B2 Receptor	NM_000623	atgttctctc cctggaagat atcaatgttt ctgtctgttc gtgaggactc cgtgcccacc A acggcctctt tcagcgccga catgtcaat gtacaccttg ctcacccacc tcttaacagg acctttgccc agagcaaatg ccccaagtg gagtggctgg gctggctcaa caccatccag cccccttcc tctgggtgct gtctgtgctg gccaccctag agaacatctt tgtcctcagc gtcttctgcc tgcacaagag cagctgcacg gtggcagaga tctacctggg gaacctggcc gcagcagacc tgatcctggc ctgcggtgct ccttctgtgg ccatcaccat ctccaacaac ttcgactggc tctttgggga gacgtcttgc cgcgtgttga atgcccattat tccatgaac ctgtacagca gcatctgttt cctgactgtg gtgagcatcg accgtacctt ggcctgggtg aaaacctatg ccatgggccc gatgcgggc gtgcgctggg ccaagctcta cagcttgggtg atctgggggt gtacgtgct cctgagctca cccatgctgg tgtccgggac catgaaggag tacagcgatg agggccacaa cgtcacgct tgtgtcatca gctaccctat cctcatctgg gaagtgttca ccaacatgct cctgaatgtc gtgggcttcc tgtgccccct gagtgtcatc accttctgca cgtgcagat catgcagggt gtgcggaaca acgagatgca gaagtccaag gagatccaga cggagaggag ggccacgggt ctagtctgtg ttgtgctgct gctattcatc atctgctggc tgcccttcca gatcagacc ttctggata cgtgcatcg cctcggcatc ctctccagct gccaggcga gcgcatac gcgtaatac cacagatgc cctctcatg gcctacagca acagctgctt caacccactg gtgtacgtga tctgtggcaa gcgttccga aagaagtctt gggaggtgta ccaggagatg tgccagaaaag ggggctgcag gtcagaacct attcagatgg agaactccat gggcacactg cggacctcca tctccgtgga acgccagatt cacaactgc agactgggc agggagcaga cagtgcagca acgccagcag ggtgctgtg aatttgtga aggatagg gacagtgtct ttctcagcatg ggcccaggaa tgccaaggag acatctatgc acgaccttg gaaatgagtt gatgtctccg gtaaacacc ggagactaat tctgccccctg ccaaatcttg caggagagcat ggtgtgagg atggggtgaa ctacgcaca gccaaggact ccaaatcac aacagcata ctgttcttat ttgctgccac acctgagcca gcctgctcct tcccaggat ggaggaggcc tggggggagg gagaggatg actgagcttc cctccccgtg gttctccgtc cctgccccag caagacaact tagatctcca ggagaactgc catccagctt tgggtgcaatg gctgagtga caagtgagtt ttgccccctg gtttctttaa tctattcagc tagaactttg aaggacaatt tcttgcatat ataaaggtta agccctgagg ggtccctgat acaaaccttg agaccaggat tttaggtctt cctcactga tggacaagga ggtctgtgcc aaagaagaat ccaataagca catattgagc acttgctgta tatcagatat tgagcactgt aggcaagacc caagaaagag aaggagccat ctccatcttg aaggaaactca aagactcaag tgggaacgac tgggcactgc caccaccaga aagctgttcg acgagcgggt cgagcagggt gctgtgggtg atatggacag cagaagggggg agaccaaggt tccagctcaa ccaataacta ttgcacaacc acctgtccct gcctcagttc cttttatgt aacatgaagt cgttgtgagg gttaaaggca gtaacaggta taaagtactt agaaaagcaa aggtgtctac	Homo sapiens

48	600	Bradykinin B2 Receptor	NP_000614.1	<p>           gacatgtga ggcacatgta cgcagacgta actgggatat gttactata aggaagagac            actgaggtct agaaatagct ccgtggagca gaatcagtat tgggagccgg tggcggtgtg            aagcaccagt gtctggcaca cagtaggtgc tcattggctc cctccacct gtcattccca            ccaccctgag gcccacacg ccacacacac agagcattt ggagagaagg ccatgtcttc            aaagtctgat ttgtgatgag gcagaggaag atattttaa tcggtcttgc ccagaggatc            acagtgtga gacccccac caccagccgg tacctgggaa ggggagagt gcaggcctgc            tcagggactg ttctgtctc agcaaccaag ggattgttcc tgtcaatcaa tggtttatg            gaaggtggcc cagtatgagc cctagaagag tgtgaaaagg aatggcaatg gtgttcacca            tcggcagtgc cagggcagca ctcatctact tgataaatga atatttatta gctggttgga            gagtagaac ctggagagct agaacctgga gaactagaac. ctggagggct agaacctgga            gaggctagaa ccaagaagg ctgaacctg gagggcctag aacctagaga agctaaaacc            tgagctagaa gctggaggac tagaacctgg agggctgga tctgaagggc tagaacctgg            agggctgga tctggagagc tagaacctgg agggctgga cctggagggc tagaacctag            aagggctaga acctggagg ctggaatctg gagagctaga acctggagg gtagaacctg            gagggctaga acctgaaagg gctagaacct ggaggcctag aacctggcag gtagaacct            agaagggcta gaacctggag agccagaacc tggagggcta gaacctggaa gggctagaac            ctgtagagct agaactgga gagctagaac cggcaggct agaacctggc aagctagaac            ctggagggaa tgaacctgga gggctagaac ctggagaatg agaaaaat acatggcaca            gagccataa atcctgacca atccactct gaattttaa gcaaaagcgt gaaaaaaaag            attccctct taccaccaac ccactctttt tccccaccac ccactctct ctgctcagt            aagtatctgg aggaagaaaa caggtgaaag aagaagtaa aacctttag tattagtatt            agaataagt caactgtgc cacacatggt gaatgaaaa aaaaaaaag aggtgtgtt            ttgtcacaca ggcagtgctat tcagcaccag agcacgtgat ggtctgagac tctcttagga            gcagagctct gccgcaatgg ccattgtggg atccacacct ggtctgaggg caactgagt            ctgagggaga agagcgccc tatgcatggt tagatgccc tgataagaa catctgtcct            gtgaaagact caatgagctg ttatgttga aacaggaaac atttcacatc caaacgagaa            aatcatgtaa acatgtgtct ttctctgata gcataataa tggatgaggt ttttgcaaaa            aaaaaaaa aaa         </p>	Homo sapiens
49	635	Beta-1 adrenoceptor	NM_000684	<p>           tgcataccgc gcccggtt ccccaaccac ggccagccc tgccacacc A            cccgccccgc gcctccgag ctggcagtg gcgcgggggt gctgctctg ggcgctccg            agccccgtaa cctgtctgag gccgcacgc tccccgacg gcgagccacc gcggcgcggc            tgctggtgccc cgcgtcgccc cccgctcgt tgctgctcc gcagcagaa agccccgagc            cgtgtctca gcagtgaca gcgggcatgg gctgtctgat ggcgtcatc gtgctgtca            tcgtggcggg caatgtgctg gtgatcgtg ccataccaa gacgcgcgg ctgcagacgc         </p>	Homo sapiens

50	635	Beta-1 adrenoceptor	NP_000675.1	<p> taccacacct cttcatcatg tccctggcca gcgcggacct ggtcatgggg ctgctgggtg  tgccgttcgg ggcaccacg gtggtgtggg gcgcgtggga gtaaggctcc ttcttctgcg  agctgtggag ctgagtggac gtgctgtgag tgacggccag ctacagagc ctgctgtgtca  ttgcccctgga ccgtacctc gccatcacct ggccttccg ctaccagagc ctgctgacgc  gcgcgcgggc gcggggccct gtgtgacgg tgtgggcat ctgggcccct gtgtccctcc  tgccatcct catgcactgg tggcgggcgg agagcgacga ggcggcgccg tgctacaacg  accocaagt ctgcgacttc gtcaccaac ggcctacgc catcgcccg tccgtagtct  ccttctacgt gccctgtgc atcatggcct tctgtacct gcgggtgttc cgcgaggccc  agaagcaggt gaagaagatc gacagtgg agcgcgttt cctcgccggc ccagcgcggc  cgccctgcgc ctgcctcgc cccgtcccc gcgcgcgc cgcgcgcga cccccgcgc  cgcgcgcgc gcgcgccac gcccgctgg ccaacggcg tgcgggtaag cgcgggcccct  cgcgcctcgt ggcctacgc gacgaagg cgtcaagac gctgggcac atcatggcg  tcttcaagct ctgctggctg ccttcttcc tggcacaagt ggtgaaggc ttccaccgcg  agctgggtgc cgaccgctc ttgcttctc tcaactggct ggcctacgc aactcgccct  teaaccctcat catctactgc cgcgcgcgc acttccgaa ggccttccag ggactgctct  gctgcgcgc cagggtgccc gcgcggcgc acgcgaccca cgcgacgcg cgcgcgcct  cgggtgtct ggcgcgccc ggcgcgcgc catgcgcgcg ggcgcgcgc gacgacgacg  acgacgatgt cgtcggggc acgcgcgcg cgcgcctgt ggcgcctgg gccggctgca  acgcgggggc ggcggcgac agcactcga gcttgacga gccgtgcgc cccggcttcg  cctcggaatc caaggtgtag ggcgcgcgc ggcgcgcga ctcgggcac ggccttccag  gggaacgagg agatctgtgt ttacttaaga ccgatagcag gtgaactcga agccacaat  cctcgtctga atcatccgag gcaaaagaaa agccacgga cgttgacaa aaaaggaaa  tttggaagg gatggagag tggctgtctg atgttctctg ttg </p>	Homo sapiens
51	640	Beta-2 adrenoceptor	NM_000024	<p> MGLMALIVL LIVAGNLVI VAIKTPRLQ TLNLFIMSL ASADLMGLL VVFGATIV  WGRWEYGSFF CELWTSVDVL CVTASIEILC VIALDRYLAI TSPRYQSL TRAPARGLVC  TVWALSALVS FLPILMHWR AESDEARRCY NDPKCCDFVT NRAYAIASSV VSFYVPLICIM  AFVYLRVRE AQQVKKIDS CERRELGGPA RPPSPSPV PAPAPPPGP RPAAAAATAP  LANGRAGRR PSRLVALREQ KALKTLGIIM GVFTLCWLPF FLANVVKAFH RELVPDRLEFV  FFNLGYANS AFNPIIYCRS PDKFAFQGL ICCARRAARR RHATHGDRPR ASGCLARPGP  PPSPGAASDD DDDVVGATP PARLLEPWAG CNGGAAADSD SSLDEPCRPV FASESKV  actgcgaagc gcttcttca ggcacgggc tggaaactggc aggcacgcg agcccctagc A  acccgacaa ctgagtgtgc agcacgagtc cccaccacac ccacaccaca gccgtgaat  gagcttcca ggcgtccgt cgcgcgcgc agagccccgc cgtgggtccg cccgtgagg  cgccccagc cagtgcgtt acctgcaga ctgcgcgcca tggggcaacc cgggaacggc  agcgccttct tctgggcacc caatagaagc atgcgcgcg accacgact cgcgagcaa  agggacgagg tctgggtggt ggcacatggc atcgtcatgt ctctcatgt cctggccatc  gtgtttggca atgtgctggt catcacagcc attgccaagt tcgagcgtct gcagacggtc  accaactact tcatcacttc actggcctgt gctgatctgg tcatgggctt ggcagtggtg  ccctttgggg ccgccatat tcttatgaaa atgtggactt ttggcaact ctggtgcgag  ttttggactt ccattgatgt gctgtgcgtc acggccagca ttgagaccc ctgctgctgac </p>	Homo sapiens

52	Beta-2 adrenoceptor	NP_000015.1	<p> gcagtggatc gctactttgc cattacttca ctttcaagt accagagcct gctgaccaag  aataaggccc ggtgatcat tctgatgtg tggattgtg caggccttac ctcttcttg  ccattcaga tgcactgga ccgggccacc caccaggaag caataaactg ctatgccaat  gagacctgct gtgacttctt caccgaaccaa gctatgcca ttgctcttcc catcggtgcc  ttctacgttc ccctggtgat catggtcttc gtctactcca ggtcttttca ggaggccaaa  aggcagctcc agaagattga caaatctgag gccgcttcc atgtccagaa ccttagccag  gtggagcagg atggcgccac cctcaagac gtccgcagat ctccaagt ctgcttgaag  gagcacaag cctcaagac gttaggcac atcatggca cttcacccct ctgctggctg  cccttcttca tggtaacat tgtgcatgtg atccaggata acctcatccg taaggaaagt  taccctctcc taaattgat aggtatgtc aattctggtt tcaatccccct tatctactgc  cggagcccg atttcaggat tgccttccag gagcttctgt gccctggcag gtcttctttg  aaggcctatg ggaatggcta ctccagcaac ggcaacacag gggagcagag tggatatcac  gtggaacagg agaaagaaa taaactgctg tgtgaagacc tcccaggcac ggaagacttt  gtgggccatc aagtgactgt gctagcgtat aacattgatt cacaaggag gaattgtagt  acaaatgact cactgctgta agcagtttt tctactttta aagaccccc ccccccaac  agaacactaa acagactatt taacttgagg gtaataaact tagaataaaa ttgtaaaaa  tgtatagaga tatgcagaag gaagggcac ctctgcctt ttttattttt ttaagctgta  aaaagagaga aaacttattt gagggtattt ttgttatttg tacagttcag ttctcttttg  catggaattt gtaagtttat gtctaaagag cttagtctct agaggacctg agtctgctat  attttcatga cttttccatg tatctacctc actattcaag tattaggggt aatatattgc  tgctggtaat ttgtatctga aggagatttt ccttcttaca ccttggact tgaggatttt  gagtatctcg gacctttcag ctgtgaacat ggactcttcc cccactctc ttatttgctc  acacggggtg ttttaggcag ggaattgagg agcagcttca gttgttttcc cgagcaagg  tctaaagttt acagtaataa aatgttttga ccatg </p>	Homo sapiens
640	Beta-2 adrenoceptor	NP_000015.1	<p> MCQPGNGSAF LIAPNRSHAP DHDTQQRDE VVVVGMGIVM SLIVLAIVEG NVLVITAIK P  FERIQTVTNY FITSLACADL VMGLAVVPFG AAHILMKMT FGNFWCEFWT SIDVLCVTAS  IETLCVIAVD RYFAITSPFK YQSLITKKA RVIIIMWIV SGLTSLPIQ MHWYRATHQE  AINCYANETC CDFFTNQAYA IASIVSFYV PLVIMVFVYS RVFQEAQRQL QKIDKSEGRF  HVQNLSQVEQ DGRTGHLRR SSKFCLKEHK ALKTLGIIMG TFTLCWLPFF IVNIVHVIQD  NLIRKEYVIL LNWIGYVNSG FNPLYCRSP DFRIAFQELL CLRRSSLKAY GNGYSSNGNT  GEQSGYHVEQ EKENKLICED LPGEDFVGH QGTVPSDNID SQGRNCSTND SLL </p>	Homo sapiens
53	Beta-3 adrenoceptor	NM_000025	<p> gctactcttc ccccaagagc ggtggcaccg agggagtgg ggtgggggga ggctgagcgc A  tctggctggg acagctagag aagatggccc aggtgggga agtcgctctc atgccttgct  gtccctctcc ctgagccagg tgattggga gacccctcc ttccttctt cctaccgcc  ccacgcgcga cccggggatg gctccgtggc ctacagagaa cagctctctt gccccatggc  cggacctccc caccctggcg cccaataccg ccaacaccag tgggctgcca ggggttccgt  gggagggcgc cctagccggg gccctgctgg cgctggcgt gctggccacc ttgggagga  acctgctggt catcgtggcc atcgccctgga ctccgagact ccagaccatg accaacgtgt  tcttgacttc gctggccgca gccgacctgg tgatgggact cctggtgggt ccgccggcgg  ccacctggc gctgactggc cactggccgt tgggcgccac tggctgcag ctgtggacct  cgggtggacct gctgtgtgtg accgccagca tcgaaacctt gtcgccctg gccgtggacc </p>	Homo sapiens

**Homo sapiens**

55	688	Opsin, blue- sensitive	NM_001708	<p>CRCGRRRLPPE PCAAARPALF PSGVPAARSS PAQPRLCQRL DGASWGVS</p> <p>ggcatccatg agaaaaatgt cggaggaaga gttttatctg ttcaaaaata tctcttcagt A</p> <p>ggggccgtgg gatggcctc agtaccacat tgccccctgc tgggccccttct acctccaggc</p> <p>agctttcatg ggcactatgt tctttatagg gtccccactc aatgccatgg tgcgtggtggc</p> <p>cacactgcgc tacaaaaagt tgcggcagcc cctcaactac attctggtca acgtgtcctt</p> <p>cggaggcttc ctccctctgca tcttctctgt ctccccctgc ttctgctgcca gctgtaacgg</p> <p>atacttcgtc ttccggtcgcc atgtttgtgc ttggaggggc ttctggggca ctgtagcagg</p> <p>tctggttaca ggatggtcac tggccttctc tggcctttgag cgtacatttg tcatctgtaa</p> <p>gcccctgggc aacttcogct tcaggtccaa gcatgcactg acgtggtgtcc tggctacctg</p> <p>gaccattggt attggcgtct ccattcccacc ctctctttggc tggagccggt tcatccctga</p> <p>gggcctgcag tgttccctgt gccctgactg gtacaccgtg ggcacaaaat accgcagcga</p> <p>gtcctatcag tggttcctct tcatcttctg ctccattgtg cctctctccc tcatctgctt</p> <p>ctcctacact cagctgctga gggccctgaa agctgttgca gctcagcagc aggagtcagc</p> <p>tacgacccag aaggctgaac gggaggtgag ccgcatgggt gttgtgatgg taggatcctt</p> <p>ctgtgtctgc tacgtgccct acgcgccctt cgccatgtac atggtcaaca accgtaacca</p> <p>tgggctggac ttacggcttg tcaccattcc ttcattcttc tccaagagtg cttgcatcta</p> <p>caatcccatc atctactgct tcatgaataa gcagttccaa gcttgcatca tgaagatggt</p> <p>gtgtgggaag gccatgacag atgaatccga cacatgcagc tcccagaaaa cagaaagtct</p> <p>tactgtctcg tctacccaag ttggcccca tctgagaccc aatatggcc tgtttgcaac</p> <p>agtagaatt aaattttact t</p>	Homo sapiens
56	688	Opsin, blue- sensitive	NP_001699.1	<p>MRKMSSEEFY LFKNISSVGP WDGPOYHIAP VWAFLQAAF MGTVFLIGFP INAMVLVATL P</p> <p>RYKLRQPLN YILNVVSFGG FLICIFSVFP VFVASCNGYF VFGRHVCALE GFLGTVAGLV</p> <p>TGWSLAFIAP ERYIVICKPF GNFRESSKHA LTVVLATWTI GIGVISIPFF GWSRFIPEGL</p> <p>QCSGPDWYT VGTKYRSESY TWFLFICFI VPLSLICFSY TQLLRALKAV AAQQQESATT</p> <p>QKAEREVSRM VVMVGSFCV QACIMKMWCG KAMTDES DTC SSQKTEVSTV SSTQVGPN</p> <p>IIYCFMNKQF QACIMKMWCG KAMTDES DTC SSQKTEVSTV SSTQVGPN</p> <p>gagtagctgg atgtcttggg tttctctccc attctgttct gttctgttct cctaataacca A</p> <p>tctcgttact agacgtaggc atgggacgtg acaatcaact gcatttgaac tgagaagaag</p> <p>aaatattaaa gacacagtct tcagaagaaa tggctcaaa gacgcctcac tcacctaatc</p> <p>agactttaat ttcaatcaca aatgacacag aatcatcaag ctctgtggtt tctaaccgata</p> <p>acacaaaataa aggatggagc ggggacaaact ctccaggaaat agaagcattg tgtgccatct</p> <p>atattactta tgcgtgatc atttcagtgg gcattccctgg aaatgctatt ctcatcaaaag</p> <p>tctttttcaa gacaaaatcc atgcaaacag ttccaaatat tttcatcacc agcctggctt</p> <p>ttggagatct ttacttctg ctaacttctg tggcattgga tgcacactcac tactttgcatg</p> <p>aaggatggct gttcggaaga attggttcta aggtgctctc ttcatcccg cteacttctg</p> <p>ttggtgtgct agtgttcaca ttaacaattc tcagcgctga cagatacaag gcagttgtga</p> <p>agccacttga gcgacagccc tccaatgcca tctgaagac ttgtgtaaaa gctggctgctg</p> <p>tctggatcgt gtctatgata ttgtctctac ctgaggtctat attttcaaat gtatacactt</p> <p>ttcgagatcc caataaaaa atgacatttg aatcatgtac ctcttacct gtctctaaga</p> <p>agctcttgca agaaatacat tctctgctgt gcttcttagt gtctacatt attccactct</p> <p>ctattatctc tgcctactat tcccttgattg ctaggaccct ttacaaaagc acctgaaca</p>	Homo sapiens
57	692	Bombesin Receptor Subtype-3	NM_001727		Homo sapiens



58	692	Bombesin Receptor Subtype-3	NP_001718.1	<p> tacctactga ggaacaaagc catgcccgta agcagattga atcccgaaag agaattgcca  gaacgggtatt ggtgttggtg gctctgtttg cctctgtgtg gttgcgaaat cactctcgtg  acctctacca ttcatctact tctcaaacct atgtagaccc ctctgccatg catttcattt  tcaccatttt ctctcggtt ttggctttca gcaattcttg cgtaaacccc ttgtctctct  actggctgag caaagcttc cagaagcatt ttaaagctca gttgttctgt tgcaaggcgg  agcggcctga gctcctgtt gctgacacct ctcttaccac cctggctgtg atgggaacgg  tcccgggac tgggagcata cagatgtctg aaattagtgt gacctgttc actgggtgta  gtgtgaagca ggcagaggac agattctagc ttttcaagga aaaatgtgtc ttctcctccc  agcgtgtgta tccgactcta agctgtgtgc agg  GILGNAILIK VFFKTKSMQT QTLISITNDT ESSSSVVSND NTKGWSGDN SPGIEALCAI YITYAVIISV P  KVLSFIRLTS VGSVFTLTI LSADRYKAVV KPLERQPSNA ILKTCVKAGC VMIVSMIFAL  PEAIFSNVYT FRDPNKNMTE ESCTSYPVSK KLLQEIHSLL CFLVFIIPPL SIISVYYSLI  ARTLYKSTLN IPTEEQSHAR KOIESRKRIA RTVLIVLVALF ALCWLPNHLI YLYHSFTSQT  YVDPSAMHFI FTIFSRVIAF SNSCVNPFAL YWLSKSFQKH FKAQLFCCKA ERPEPPVADT  SLTTLAVMGT VPGTGSIQMS EISVTSFTGC SVKQAEADR  gctgccacct ctctagaggc acctggcggtg gacgtcttca acataagaca gtgaccagtc A  tgggtgactca cagccggcac agccatgaac tacccgctaa cgctggaaat ggacctcgag  aacctggagg acctgttctg ggaactggac agattggaca actataagca cactccctg  gtggaataatc atctctgccc tggcacagag gggcccttca tggcctctt caaggccgtg  ttcgtgcccc tggcctacag cctcatcttc ctctggcg tgatcgga cgtcctgggtg  ctggtgatcc tggagcgga cggcgagaca cgcagttcca cggagacct cctgttccac  ctggccgtgg ccgacctcct gctggtcttc atcttgccct ttgccgtggc cgagggtctt  gtgggctggg tccctgggac ctctccttgc aaaaacttga ttgccctgca caaagtcaac  ttctactgca gcagcctgct cctggcctgc atcgccgtgg accgtacct ggcattgttc  cacgcgtcc atgcctacc ccacccgcgc ctctcttcca tccacatcac ctgtgggacc  atctggctgg tgggcttctt ccttgccctg ccagagattc tcttgcgcaa agtcagccaa  ggccatcaca acaactcctt gccacgttg cccttctccc aagagaacca agcagaaacg  catgcctggt tcacctccc atctctctac catgtggcgg gattcctgct gccatgctg  gtgatgggt ggtgtactgt ggggttagtg cacagggttg gccaggccca gggcgccct  cagcgcaga aggcagtcag ggtggccatc ctggtgacaa gcatcttctt cctctgtggtg  tcacctacc acatgctcat ctctcctggac acctggcga ggtgaaagg cgtggacaat  acctgcaagc tgaatggctc tctccccgtg gccatcaca tgtgtgagtt cctgggctg  gcccactgct gctcaaccc catgctctac actttgcgg ccgtgaagt cgcagtgac  ctgtcgcggc tctgacgaa cctgggctgt accggccctg cctccctgtg ccagctcttc  cctagctggc gcaggagcag tctctctgtg tcagagaatg ccacctctt caccagttc  taggtccag tgtcccttt tattgctgct ttctctggg gcaggcagtg atgtggatg  ctccttccaa caggagctgg gatcctaagg gctcaccgtg gctaagagtg tctaggagt  atcctcattt ggggtagcta gaggaaccaa ccccatctt tagaacatcc ctgccagctc  ttctgcccgc cctggggcta ggctggagcc caggagcgg aaagcagctc aaaggcacag  tgaaggctgt ccttaccat ctgcaccccc ctgggctgag agaactcac gcacctccca </p>	Homo sapiens
59	729	CXC Chemokine Receptor 5	NM_001716	<p> acataagaca gtgaccagtc A  cgctggaaat ggacctcgag  actataagca cactccctg  tggcctctt caaggccgtg  cgtcctgggtg  cggagacct cctgttccac  ttgccgtggc cgagggtctt  ttgccctgca caaagtcaac  ggccattgtc  tccacatcac ctgtgggacc  tcttgcgcaa agtcagccaa  aagagaacca agcagaaacg  gattcctgct gccatgctg  gccaggccca gggcgccct  gcatcttctt cctctgtggtg  ggctgaaagg cgtggacaat  tgtgtgagtt cctgggctg  cgtgaagt cgcagtgac  cctccctgtg ccagctcttc  ccacctctt caccagttc  gcaggcagtg atgtggatg  gctaagagtg tctaggagt  tagaacatcc ctgccagctc  aaagcagctc aaaggcacag  agaactcac gcacctccca </p>	Homo sapiens

60	CXC Chemokine Receptor 5	NP_001707.1	729	<p> tctaatacat ccaatgctca agaaacaact tctaactctg cccttgccaa cggagagcgc  ctgccccctc cagaacacac tccatcagct taggggtgctg tgacctccac agttccccct  ctctctctct gccacactgt caaacaagc agagtgctga gcaccaggcg atgagtggag  gttaaggctg agaaaggcc agctggcagc agagtgtggc cttcggacaa ctcagtccct  aaaaacacag acattctgcc agcccccaa agcctgcagc atcttgacca agcagggaagc  tcagactggt tgaattcagg tagctgcccc tggctctgac cgaacacagc ctgggtccac  cccatgtcac cggatcctgg gtgtctgca ggcagggtg actctaggtg ccttggagg  ccagccagtg acctgaggaa gcgtgaagc cgagaagcaa gaaagaaacc cgacagagg  aagaaaagag cttctctccc gaaccccaa gaggagatg gatcaatcaa acccggcggt  ccctccgcc agcagagatg gggtggggtg gagaactcct aggttggtg ggtccagggg  atggagggtt gtgggcattg atgggaag aggtgggtt gtccccctc cactccctc  ccataagcta tagaccgag gaaactcaga gtcggaacg agaaggtg actggaagg  gccgtggga gtcactcaaa ccatccctc cgtggcataa ccttaggcag ggaagtgtaa  gaaacacact gaggcaggga agtccccagg cccaggaag ccgtgccctg cccccgtgag  gatgtcactc agatggaacc gcagggaagt gctccgtgct tgttgctca cctggggtgt  gggaggcccg tccggcagtt ctgggtgctc cctaccacct cccagcctt tgatcaggtg  gggagtcagg gacccctgcc cttgtccac tcaagccaag cagccaagct ccttggagg  ccccactgg gaaataacag ctgtgggtca cgtgagagt tctcacggc aggacaacga  ggaagcccta agacgtccct ttttctctg agtatctct cgaagctgg gtaatcgatg  gggagtcctg aagcagatgc aaagaggcaa gaggctggat ttgaaattt ctttttaata  aaaaggcacc tataaaacag gtcaatacag tacaggcagc acagagaccc cggaaacaa  cctaaaaatt gtttcaaat aaaaaccaag aagatgtctt caaaaaaaa aaaaaaaa  aaaa </p>	Homo sapiens
				<p> MPYPLTLEMD LENLEDLFE LDRLDNYNDT SILVENHLCPA TEGPLMASFK AVFVPVAYSL P  IFLLGVIGNV LVLVILERHR QTRSTETFL FHLAVADLLL VFILPFAVAE GSVGWVLGTF  LCKTVIALHK VNFYCSLLL ACIAVDRYLA IVHAVHAYRH RRLLSIHITC GTIWLVGFL  ALPEILFAKV SQGHNNSLP RCTFSQENQA ETHAWTSRF LYHVAGFLLP MLVWGWCYVG  VVHRLRQAR RPORQKAVRV AILVTSIFFL CWSPYHIVIF LDTLARLKAV DNTCKLNGSL  PVAITMCEFL GLAHCCCLNPM LYTFAGVKER SDLSRLTLTKL GCTGPASLCQ LFPSWRRSSL  SESENATSLT TF </p>	
61	C-C Chemokine Receptor 1	NM_001295	735	<p> ggcagagcc cagaacaaa gacttcacgg acaagtcctt ccttgcacg agagaagccg A  ggatggaac tccaaacacc acagaggact atgacacgac cacagagttt gactatgggg  atgcaactcc gtgccagaag gtgaacgaga gggccttttg gcccactg ctgccccctc  tgtactcctt ggtattgtc atggccttggt ttggaacat cctgggtgct ctggtccttg  tgcaatacaa gaggctaaaa aacatgacca gcatctacct cctgaacctg gccatttctg  acctgctctt cctgttcacg cttcccttct ggatcgacta caagtgaag gatgactggg  tttttggtga tgccatgtgt aagatcctct ctgggtttta ttacacaggc ttgtacagcg  agatctttt catcatcctg ctgacgattg acaggtacct ggccatcgt cagccgtgt  ttgccttgcg ggcacggacc gtcacttttg gtgtcatcac cagcatcatc atttggggcc  tggccatctt ggcttccatg ccaggcttat acttttccaa gacccaatgg gaattcactc  accacacctg cagccttcac ttctctcagc aaagcctcag agagtgggaag ctgtttcagg </p>	Homo sapiens

62	735	C-C Chemokine Receptor 1	NP_001286.1	ctctgaaact gaacctcttt ggcctggtat tgcctttggt ggtcatgac atctgctaca caggattat aaagattctg ctaagacgac caaatgagaa gaaatccaaa gctgtccgtt tgatttttgt catcatgac atcttttttc tcttttgac ccctacaat ttgactatac ttatttctgt tttccaaagac ttcctgttca ccatgagtg tgagcagagc agacatttgg acctggctgt gcaagtgcg gagtgatcg cctacacgca ctgctgtgc aacctagtga tctacgctt cgttggtgag aggtccgga agtacctgcg gcagttgttc cacaggcgtg tggctgtgca cctgggttaa tggctccct tctctccgt ggacaggctg gagagggtca gctccacatc tccctccaca ggggagcatg aactctctg tgggttctga ctcagaccat aggaggccaa cccaaaataa gcaggcgtga cctgccaggc acactgagcc agcagcctgg ctctccagc caggttctga ctctggcac agcatggagt cacagccact tgggatatag agggaatga atggtggcct ggggcttctg aggttcttg agcttctg tttccatga acttctccc tggtagaaag agatgaatg agcaaaacca atattccag agactgggac taagtgtacc agagaaggc ttggaactca gcaagatttc agatttgtga ccattagcat ttgtcaacaa agtcaccac tcccactat tgcttgaca aaccaattaa acccagtagt ggtgactgtg ggtccattc aaagtgagt cctaagccat gggagacact gatgtatgag gaatttctgt tcttccatca cctccccc cccgccacc tccactgcc aagaacttgg aaatagtgat ttccacagt actccactc ggtccaga gccaatcagt agccagcatc tgctccctt tcaactccc cgcagattt gggctcttgg aatcctggg aacatagaac tcatgacgga agatttgaga cctaacgaga aatagaaatg ggggaactac tgctggcagt ggaactaaga agcccttag gaagaattt tatatccact aaatcaaac aattcaggga gtgggctaag cagggccat atgaataaca tgggtgtgct cttaaaatag ccataaaggg gagggaactca tcttccat ttacccttct tttctgacta ttttcagaa tctcttct tttcaagttg ggtgatatgt ttgtagattc taatggcttt attgacgca ttaataacag gcaaaaggaa gcagggttgg ttcccttct tttgttctt catctaaagg tctgtgtttt atgggtcaga gttccgactg ccatcttga cttgtcagca aaaaaaaa aaaaaa QYKRLKNTS IYLLNLAISD LLFLTLPFW ALRARTVTFG VITSIIWAL AILASMPGLY FSKTQWETH IFFILLTID RYLAIVHAVF SLREWLFOA LKLNLFGLVL PLLVMIICYT GIKILLRRP NEKSKAVRL HTCSLHPHE SLREWLFOA LKLNLFGLVL ISVFQDFLEF HECEQSRHLD LAVQVTEVIA YTHCCVNPVI YAFVGERFRK YLRQLFHRV AVHLVKWLPF LSVDRLEVS STSPSTGEHE LSAGF 737	63	737	C-C Chemokine Receptor 3	NM_001837	tttttctct tctatcacag ggagaaagtga aatgacaacc tcactagata cagttgagac A ctttgttacc acatcctact atgatgactg gggcctgctc tgtgaaaaag ctgataccag agcactgatg gccagtttg tgcctccctg gtactccctg gtgttccacty tgggctctt gggcaatgtg gttgtgtgta tgatctctcat aaaaacacag aggtccgaa ttatgaccaa catctactg ctcaacctgg ccatttcgga cctgctcttc ctcgtcacc ttccattctg gatccactat gtcagggggc ataactgggt ttttggccat ggcattgtga agtcccttc agggttttat cacacaggct tgtacagcga gatctttttc ataactctgc tgacaatcga caggtacctg gccattgtcc atgctgtgtt tgccttcga gcccgactg tcaatttgg tgtcatcacc agcatcgta cctggggcct ggcagtgcta gcagctcttc ctgaatttat cttctatgag actgaagagt tgtttgaaga gactctttgc agtgcctttt acccagagga
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Homo  
sapiensHomo  
sapiens

Homo sapiensHomo sapiens

NP 001828.1 MTTSLDTFVET FGTTSSYYDDV GLICEKADTR ALMAQFVPPL YSLVFTTVGLL GNWVWVWVILI P

[illegible]

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 actctctatt gtgttttagg tcagatgcag aaaattgcct aaagaggaag gaccaaggag  
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64 737 C-C NP 001828.1

65	738	C-C	NM_005508
66	739	C-C	NM_005508
67	740	C-C	NM_005508
68	741	C-C	NM_005508
69	742	C-C	NM_005508
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98	771	C-C	NM_005508
99	772	C-C	NM_005508
100	773	C-C	NM_005508

C-C  
Chemokine  
Receptor 3

C-C  
Chemokine  
Receptor 4

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	MYMTSLDVTET	LLFLVTLFPW	IHYVRGHNW	FGHGMCKLLS	GFYHTGLYSE
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IFFIILLTID	RYLAIVHAVE	LRMTIFCLVL	PLLVMAICYT	GIKTLRLCP	SKKYKAIRL
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ctttaaaatt	ggtattttta	ggtaagagat	ccctgagcca	gtgtcaggag	gaaggcttac
accacacagt	gaaagacagc	ttctcatctc	gcaggcagct	ttttctctcc	cactagacaa

66	738	C-C Chemokine Receptor 4	NP_005499.1	gtccagcctg gcaaggggtc acctgggctg aggcattcctt cctcacacca ggttgccctg caggcatgag tcaagtctgat gagaactctg agcagtgcctt gaataagtt gaggtaata ttgcaaggca aagactattc ccttctaacc tgaactgatg ggtttctcca gaggaattg cagagtactg gctgatggag taaatcgcta ccttttgctg tggcaaatgg gcccccg NMPTDIADTT LDESIYNY LYESIPKPT KEGIKAFGEL FLPPLYSLVF VFGLLGNV P VLVLFKYKRL RSMTDVYLLN LAISDLFVF SLPFWGYAA DQWVFGGLC KNISWMLVG FYSGIFFVML MSIDRYLAIV HAVFSLRART LTYGVITSLA TWSVAVFASL PGFLFSTCYT ERNHTYCKTK YSLNSTWKV LSSLEINILG LVIPLGIMLF CYSMIIRTLQ HCKNEKNKA VKMIFAVVVL FLGFWTPYNI VLFLETIVEL EVLQDCTFER YLDYAIQATE TIAFVHCCLN PIIYFFLGEK FRKYILQLFK TCRGLFVLQ YCGLLQIYSA DTPSSSYTQS TMDHDLHDAL gtgagacagg gtagtgca ggcggggcac agccttcctg tgtggtttta ccgcccagag A agcgtcatgg acctggggaa accaatgaaa agcgtgctgg tgggtgctct ccttgctcatt ttccaggat acctgtgtca agatgaggtc acggacgatt acatcgagga caacaccaca gtggactaca ctttgttgc gtctttgtgc tccaagaagg acgtgcggaa ctttaaaagcc tggttcctcc ctatcatgta ctccatcatt tgtttcgtgg gcctactggg caatgggctg gtcgtgttga cctatatcta ttccaagagg ctcaagacca tgaccgatac ctactgtctc aacctggcgg tggcagacat cctcttcctc ctgaccttc ccttctggg ctacagcgg gccaagtccct gggctcttcgg tgtccacttt tgcaagctca tctttgccat ctacaagatg agcttcttca gtggcatgct cctacttctt tgcatcagca ttgaccgcta cgtggccatc gtccaggctg tctcagctca ccgccacctg gcccgctgc ttctcatcag caagctgtcc tgtgtgggca tctggatact agccacagtg ctctccatcc cagagctcct gtacagtgc ctccagagga ccagcagtg gcaagcgtg cgtgctctc tcatacaga gcatgtggag gcctttatca ccattccaggt ggcacagatg gtgctgggt tctgtgctcc cctgtgtggc atgagcttct gttaccttgt cateatccg accctgctcc aggcacgcaa ctttgagcgc aacaaggcca tcaaggtgat catcgctg catcgctgct tcatagtctt ccagctgccc tacaatgggg tggctcctgg ccagacgggt gccaaactca acatcacca tagcacctgt gagctcagta agcaactcaa catcgctac gacgtcacct acagcctggc ctgctccgc tgtgctgta accctttctt gtagccttc atcggtcgtca agttccgcaa cgtctcttc aagctcttca agacctggg ctgctcagc caggagcagc tccggcagtg gtcttctgt cggcacatcc ggcgtcctc catgagtgtg gagggcagga ccaccaccac cttctccca taggcgactc ttctgctgg actagaggga cctctcccag ggtccctggg gtggggatag ggagcagatg caatgactca ggacatccc ccgcaaaaag ctgctcaggg aaagcagct ctcccctcag agtgcaagcc ctgctccaga agttagcttc acccaatcc cagctacctc aaccatgcc gaaaaagaca gggctgataa gctaacacca cagagacaa actgggaaac agagctatt gtcccctaaa ccaaaaactg aaagtgaag tccagaaact gttccacct gctggagtga agggcccaag gaggtgagt gcaagggggc tgggagtggc ctgaagagt ctctgaatga acctctggc ctcccacaga ctcaaatgct cagaccagct ctccgaaaa ccaggcctta tctccaagac cagagatagt ggggagactt cttggcttgg tgaggaaaa cggacatcag ctggtcaaac aaactctctg aacctccc tccatcgttt tcttactgt cctccaagcc agcgggaatg gcagctgcca cggcgcccta aaagcacact catccctca cttgccgctg cggcctccca ggctctcaac aggggagagt gtggtgtttc ctgcaggcca	Homo sapiens
67	741	C-C Chemokine Receptor 7	NM_001838	gtccagcctg gcaaggggtc acctgggctg aggcattcctt cctcacacca ggttgccctg caggcatgag tcaagtctgat gagaactctg agcagtgcctt gaataagtt gaggtaata ttgcaaggca aagactattc ccttctaacc tgaactgatg ggtttctcca gaggaattg cagagtactg gctgatggag taaatcgcta ccttttgctg tggcaaatgg gcccccg NMPTDIADTT LDESIYNY LYESIPKPT KEGIKAFGEL FLPPLYSLVF VFGLLGNV P VLVLFKYKRL RSMTDVYLLN LAISDLFVF SLPFWGYAA DQWVFGGLC KNISWMLVG FYSGIFFVML MSIDRYLAIV HAVFSLRART LTYGVITSLA TWSVAVFASL PGFLFSTCYT ERNHTYCKTK YSLNSTWKV LSSLEINILG LVIPLGIMLF CYSMIIRTLQ HCKNEKNKA VKMIFAVVVL FLGFWTPYNI VLFLETIVEL EVLQDCTFER YLDYAIQATE TIAFVHCCLN PIIYFFLGEK FRKYILQLFK TCRGLFVLQ YCGLLQIYSA DTPSSSYTQS TMDHDLHDAL gtgagacagg gtagtgca ggcggggcac agccttcctg tgtggtttta ccgcccagag A agcgtcatgg acctggggaa accaatgaaa agcgtgctgg tgggtgctct ccttgctcatt ttccaggat acctgtgtca agatgaggtc acggacgatt acatcgagga caacaccaca gtggactaca ctttgttgc gtctttgtgc tccaagaagg acgtgcggaa ctttaaaagcc tggttcctcc ctatcatgta ctccatcatt tgtttcgtgg gcctactggg caatgggctg gtcgtgttga cctatatcta ttccaagagg ctcaagacca tgaccgatac ctactgtctc aacctggcgg tggcagacat cctcttcctc ctgaccttc ccttctggg ctacagcgg gccaagtccct gggctcttcgg tgtccacttt tgcaagctca tctttgccat ctacaagatg agcttcttca gtggcatgct cctacttctt tgcatcagca ttgaccgcta cgtggccatc gtccaggctg tctcagctca ccgccacctg gcccgctgc ttctcatcag caagctgtcc tgtgtgggca tctggatact agccacagtg ctctccatcc cagagctcct gtacagtgc ctccagagga ccagcagtg gcaagcgtg cgtgctctc tcatacaga gcatgtggag gcctttatca ccattccaggt ggcacagatg gtgctgggt tctgtgctcc cctgtgtggc atgagcttct gttaccttgt cateatccg accctgctcc aggcacgcaa ctttgagcgc aacaaggcca tcaaggtgat catcgctg catcgctgct tcatagtctt ccagctgccc tacaatgggg tggctcctgg ccagacgggt gccaaactca acatcacca tagcacctgt gagctcagta agcaactcaa catcgctac gacgtcacct acagcctggc ctgctccgc tgtgctgta accctttctt gtagccttc atcggtcgtca agttccgcaa cgtctcttc aagctcttca agacctggg ctgctcagc caggagcagc tccggcagtg gtcttctgt cggcacatcc ggcgtcctc catgagtgtg gagggcagga ccaccaccac cttctccca taggcgactc ttctgctgg actagaggga cctctcccag ggtccctggg gtggggatag ggagcagatg caatgactca ggacatccc ccgcaaaaag ctgctcaggg aaagcagct ctcccctcag agtgcaagcc ctgctccaga agttagcttc acccaatcc cagctacctc aaccatgcc gaaaaagaca gggctgataa gctaacacca cagagacaa actgggaaac agagctatt gtcccctaaa ccaaaaactg aaagtgaag tccagaaact gttccacct gctggagtga agggcccaag gaggtgagt gcaagggggc tgggagtggc ctgaagagt ctctgaatga acctctggc ctcccacaga ctcaaatgct cagaccagct ctccgaaaa ccaggcctta tctccaagac cagagatagt ggggagactt cttggcttgg tgaggaaaa cggacatcag ctggtcaaac aaactctctg aacctccc tccatcgttt tcttactgt cctccaagcc agcgggaatg gcagctgcca cggcgcccta aaagcacact catccctca cttgccgctg cggcctccca ggctctcaac aggggagagt gtggtgtttc ctgcaggcca	Homo sapiens

Homo  
sapiens

NP\_001829.1

C-C  
Chemokine  
Receptor 7

741

68

ggccagctgc ctccgctga tcaaagccac actctgggct ccagagtggg gatgacatgc  
 actcagctct tggctccact gggatgggag gagagacaa gggaaatgtc agggcgggg  
 aggtgacag tggcgccca aggccacag cttgttctt gttctttgtc acagggactg  
 aaaacctctc ctcatgttct gctttcgatt cgttaagaga gcaacatttt acccacacac  
 agataaagtt ttcccttgag gaacaacag ctttaaaa  
 MDLGPMSV LVVALLVIFQ VCLCQDEVD DYIGDNTTVD YTLFESLCSK KDVRNFKWAF P  
 LPIMYSIIIF VGLLGLV LVVYIFKRLK TMTDTYLLNL AVADILFLLT LPFWAYSAAK  
 SWVFGVHECK LIFAIYKMSF FSGMLLLLCI SIDRYVAIVQ AVSAHRHRAR VLLISKLSV  
 GIWILATVLS IPELLYSIDLQ RSSSEQAMRC SLITEHVEAF ITIQVAQMWI GFLVPLLLAMS  
 FCYLVIIRTL LQARNFERNK AIKVIIAVV VFIVFQLPYN GVVLQATVAN FNITSSTCEL  
 SKQLNIAYDV TYSLACVRCC VNPFLYAFIG VKFRNDLFKL FXDLGLSQUE QLRQWSSCRH  
 IRRSSMSVEA ETTTTFSP

Homo  
sapiens

AI733823

C-C  
Chemokine  
Receptor 8

742

69

TTTAAATTTA AAAACTTTAT TGAATAGCA TGTTAGCAGC AGTGAACAGG GCATGGCACA A  
 GAAGGTTTCC AAAACAAGT TAGCATGAAG GATGCCATAT GCTGTTGCCA ACAACTAGAA  
 CACGGTGACT AAGACACAG TTCTGAATGT CCAGCACAA CTTCTGGCTG CAACTATGTT  
 CAGTGATGAT AATAACAAG GTGGTGACTT GGAAGGAATC CCTATGTCAA GTGAGAAAAA  
 AAAATGATGT CTGACCTCCT TATATATGTA AAAATATATC CTTCAGAGTC CGTCAGTAAG  
 CTGGAAGAAG TGGATGTTGA AGTTTTTAAC ATCGATGATG GGTCTCCAGT TGTTTCATCAA  
 CCCATGGTGA ATAGCTGAA CGGTCTGAA TCAAGAGTGA TCCTAATAGT GAAGACATTA  
 ACATTGCAGA AAAAGTGCCT ACAGATTATA TGGTGAATAT ACCTGATGGG CTTCTTGAAG  
 GACTAGAGCA GTGTGTATTC AAAACAGAAC AAGAAATCAC GTCAGTTTAT  
 TGCCAAATAT GCTGTTGCCA ACACTTAGAA CACAATGACT GGAGACACAG TTGTGCGTGC A  
 CTGGCACAA CTTCCAGCTG TGCTATGTT CAGTGATGAT GATGAGCAAG GTGGTGACTT  
 TGAAGGATTT TGTATATCAA GTGAAAGAA ATGATATCTG ACCTCCTTAC ATATCTAAAA  
 CATATACCTT CAAATCCAT CAATAAGCTG AAGAAATAG ATATCAAGA ATATTTTAAAC  
 ATCATTAATG AGGCTCCAGT TATTCATTCA TTGACCAATG GTAATATAGC TGAATGATT  
 CTGAATCAAG CTGATTATGA TAATAGTATG GATGAAGATG ATGTTAATAC TGCAGAAAAA  
 GTGCCTATAA ATGACACAGT GAAA

Homo  
sapiens

LG6770

C-C  
Chemokine  
Receptor 8

742

70

ctccagagag gctgctgctc attgagctgc actcacatga ggatacagac tttgtgaaga A  
 aggaattggc aacactgaaa cctccagaac aaaggctgtc actaagggtcc cgctgccttg  
 atggattata cacttgacct cagtgtaga acagtgaccg actactacta ccttgatatac  
 ttctcaagcc cctgtgatgc ggaacttatt cagacaaatg gcaagtgtgt ccttgctgtc  
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 gtggtctgca agaagctgag gagcatcaca gatgtatacc tcttgaacct ggcctgtctt  
 gacctgcttt ttgtcttctc ctccccctt cagacctact atctgtgga ccagtgggtg  
 ttgtggactg taatgtgcaa agtgggtgtc ggcttttatt acattggctt ctacagcagc  
 atgtttttca tcacctcat gagtgtggac aggtacctgg ctgttgtcca tgcctgtgtat  
 gccctaaagg tgaggacgat caggatggc acaacgctgt gcctggcagt atggctaacc  
 gccattatgg ctacctccc atgtgtagtg ttttaccagg tggcctctga agatgggtgtt  
 ctacagtgtt attcatttta caatcaacag actttgaagt ggaagatctt caccacttc  
 aaaatgaaca ttttaggctt gttgatccca ttcaccatct ttatgttctg ctacattaaa

Homo  
sapiens

NM\_005201

C-C  
Chemokine  
Receptor 8

742

71

72	C-C Chemokine Receptor 8	NP_005192.1	<p>atctgcacc agctgaagag gtgtcaaac cacaacaaga ccaaggccat caggttggtg ctcattgtgg tcattgcatc ttacttttc tgggtcccat tcaacgtggt tcttttcctc acttccttgc acagtatgca catcttgat ggatgtagca taagccaaca gctgacttat gccaccatg tcacagaaat catttccttt actcactgct gtgtgaacc ttgtatctat gcttttgttg gggagaagtt caagaacac ctctcagaaa tattcagaa agttgcagc caaatcttca actacctagg aagacaaatg cctagggaga gctgtgaaaa gtcacatcc tgccagcagc actcctccc ttctccagc gtgactaca ttttggagg atcaatgaag actaaatata aaaaacattt tcttgaatgg catgctagta gcagtggca aaggtgtggg tgtgaaaggt ttcaaaaaa agttcagcat gaaggatgcc atatatgtt ttgccaacac ttaaacaca atgactggag acatagtgt gcatgcctgg cacaacatca agcctgtgat tgtgtttatt gatgatgtg aacaagtgtt aactttaag ctctctgtat gccaaagtga aaaaaagat gtctgacct ctctatagc aaaaatatac cttcagagac gtcagtagg ctggaagaag tggatatgga agtttgaca tcaatgatga ggtccagtt gtctatgcat tgactgatgg tgaatggct ggagtgttc tgaatcaagg tgattgtgat tatagtaca atgaagatga tgctattaat actgcataaa aagtgcctgt agatgacatg gtgaaaatat ttgacaggct tatggaagga ctacagcagc acgcatcat aacagaacaa gaaattatct cagcttataa aatcaaacag agacttctag acaaaaacca ttgttgatga gccagatgcc tctagaagag acgtttaaaa gccatcaaac acaatgcctc atcttccctg gagagccac ttcctgatcc ctcaactgtg tctgatgtt ctctcatgt aagaaataaa aaataaaaaat aaaaaatat atattggtat gtaactacag gaaaaataa aaaaatatat agtgacagt aacctttcaa tcaaaactca gtatcataag tagagactga aaactgccg ttattgattg ttgttataa cagctgatac aggtattctg ctgatgtctac tgctgccag ttaccatgaa cacgtttttt cactattaat ggtgcgtcat atttttact tttaaagtact tacgtgtgag taagtgtgag aaaaatgattg cttatcagta gtatcaatga ttactcaat atctgaatca ccttgattca gaaccattc agctgtttca ccatcagtc atgaataaca gcctcattga tgtcaaaaac ttcaatatcc acttctttca gctactgta gactctgga gtatacttt tgcatatgta aggaagtcag atttttttt</p>	Homo sapiens
73	CXC Chemokine Receptor 3	NM_001504	<p>LVVIVASLLF WPFNVVLFSL TSLHSMHILD GCSISQQLTY ATHVTEIISF THCCVNPVY AFVGEKFKKH ISEIFQKSCS QIFNYLGRQM PRECEKSSS CQHSRSSSS VDYIL ccaaccacaa gcaccaagc agaggggagc gcagcacacc accagcagc cagagcaca A gcccagccat ggtccttgag gtgagtgc accaagtgtt aaatgagcc gaggttgccg ccctcctgga gaacttcagc tcttctctat actatggaga aaacagagt gactcgtgt gtacctccc gccctgccc caggacttca gctgaactt cgaccgggc ttctgcccag ccctctacag cctctcttt ctgctggggc tgcctgggcaa cggcgcggtg gcagccgtgc tgctgagcgc gcggacagcc ctgagcagca cgcacacctt cctgtctccac ctagtgtgag cagacacgct gctggtgctg acactgccg tctgggagc gtacgctgcc gtccagtggtg tcttttgctc tggcctctgc aaagtggcag gtgccccttt caacatcaac ttctacgcag</p>	Homo sapiens

74 CXC NP\_001495.1 MVEVSDHQV LNDAEVALL ENFSSYDYG ENESDSCCTS PPCQDFSLN FDFRFLPALY P Homo sapiens  
 Chemokine  
 Receptor 3

gagccctcct gctggcctgc atcagctttg accgctacct gaacatagtt catgccaccc  
 agctctaccg ccggggggccc ccggcccgcg tgacctctac ctgctgggtt gtctgggggc  
 tctgctgctt ttgcgccc cagacttca tcttctgtc ggccaccac gacgagcgc  
 tcaacgccac ccactgcca tacaacttc cacagtggt cgcacggct ctgcggtgc  
 tgcagctggt gctggttt ctgctgccc tgcgtgcat gcctactgc tatgccaca  
 tctggtgctt gctggtgtt tccaggggcc agcgcgctt gcgggcatg cggctggtg  
 tgggtgctg ggtggcctt gcctctgct ggaccccta tcaactggtg gtgctggtg  
 acatctctat ggacctggc gctttggccc gcaactgtg ccgagaaag agggtagacg  
 tggcacaagtc ggtcacctca ggcctgggt acatgactg ctgctcaac ccgctgctct  
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 gcccacaaca gagaggctc cagaggcagc catgctctt ccgcgggat tcatcctggt  
 ctgagacctc agaggctcc tactcgggt tctgagcgc gaatccggc tccctttctg  
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 cccaatctc tgcctcccg gactcactg gacccacgc accacaggt ctcccggaa  
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 tggcgccga ggtggtgctc tggagcccca ctgcccctt catttgaaa ctaaaacttc  
 atcttcccc aagtgcggga gtacaaggca tggcgtagag ggtgctgccc catgaagcca  
 cagccaggc ctccagctca gcagtactg tggcctggt ccccaagacc tctatattg  
 ctcttttatt tttatgtcta aaatcctgct taaaacttt caataaaca gatcgtcagg  
 accaaaaa aaaaaaaa aaaaaaaa aaaaaaaa aaaaaaaa  
 NP\_001495.1 MVEVSDHQV LNDAEVALL ENFSSYDYG ENESDSCCTS PPCQDFSLN FDFRFLPALY P  
 SILFLGLLG NGAVAAVLLS RRTALSSTDT FLHLAVADT LLVLTPLWA VDAVQWVFG  
 SGLCKVAGAL FNINFYAGAL LLACISFDY LNIVHATQLY RRGPPARVTL TCLAWGLCL  
 LFALPDFIFL SAHDERLNA THCOYNFPQV GRTALRVQL VAGFLPLLV MAYCYAHILA  
 VLLVSRGQRR LRAMRLVVV VVAFALCWTP YHLVVLVDIL MDLGALRNC GRESRVDVAK  
 SVTSLGLGYMH CCLNPLLYAF VGVKFRERMW MLLRLGCPN QRLQRPSS SRRDSSWSET  
 SEASYSGL

75 CXC NM\_003467 gtttgttggc tgcggcagca ggtagcaaa gtagcggag ggctgagtg ctccagtagc A Homo sapiens  
 Chemokine  
 Receptor 4

caccgcatct ggagaaccag cggttaccat ggaggggatc agtatataa cttcagataa  
 ctacaccgag gaaatgggct caggggacta tgactccatg aaggaacctt gttccgtga  
 agaaaatgct aatttcaata aaatctctt gccaccatc tactccatca tcttcttaac  
 tggcattgtg ggcaatggat tggctatcct ggtcatgggt taccagaaga aactgagaag  
 catgacggac aagtacaggc tgcacctgtc agtggccgac ctccctcttg tcatcacgct  
 tccctctgg gcagtgtgat ccgtggcaaa ctggtacttt gggaacttcc tatgcaaggc  
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 tctggaccgc tacctggcca tcttccagc caccacagtc cagaggccaa ggaagctgtt  
 ggctgaaaag ttggtctatg ttggcgtctg gatccctgce ctctgctga ctattcccc  
 cttcatcttt gccaacgtca gtgaggcaga tgacagatat atctgtgacc gcttctaccc  
 caatgacttg tgggtggtg ttgtccagtt tcagcacatc atggttgccc ttatctgccc  
 tggattgtc atctgtcct gctattgcat tatcatctcc aagctgtcac actccaaggg  
 ccaccagaag cgcaaggccc tcaagaccac agtcatcctc atctgggtt tcttgcctg



76	753	CXC Chemokine Receptor 4	NP_003458.1	<p>           ttggctgcct tactacattg ggatcagcat cgactccttc atcctcctgg aaatcatcaa            gcaagggtgt gagtttgaga acactgtgca caagtggatt tccatccagg aggccttagc            tttcttccac tgttgtctga acccctcct ctatgctttc cttggagcca aatttaaaac            ctctgcccag cagcactca cctctgtgag cagagggtcc agcctcaaga tccctcctcaa            aggaagcgga ggtggacatt catctgtttc cactgagtct gactcttcaa gttttcactc            cagctaacac agatgtaaaa gactttttt tatacgataa ataactttt ttttaagtac            acatttttca gatataaaag actgaccaat attgtacagt ttttattgct tgttggaattt            ttgtcttgtg tttcttttagt ttttgtgaag ttttaattgac ttatttatat aaattttttt            tgtttcatat tgatgtgtgt ctaggcagga cctgtggcca agttccttagt tgcgttatgt            ctctggtag gactgtagaa aagggaactg aacattccag agcgtgtagt gaatcacgta            aagctagaaa tgatcccccag ctgtttatgc atagataatc tctccattcc cgtggaacgt            ttttctgtt cttaagacgt gattttgctg tagaagatgg cacttatac caaagcccaa            agtggatag aaatgctggt ttttcagttt tcaggagtgg gttgatttca gcaactacag            tgtacagtct tgtattaaagt tgttaataaa agtacatggt aaacttactt agtgttatg            tgtacagtct tgtattaaagt tgttaataaa agtacatggt aaacttactt agtgttatg         </p>	Homo sapiens
77	755	Complement Component 3a Receptor 1	NM_004054	<p>           LVMGYQKILR SMTDKYRLHL SVADLLEFVT LPFWAVDAVA NWYFGNLFCK AVHYIYTNVL            YSSVLILAFI SLDRYLAIHV ATNSQRPRKL LAEKVVYVGV WIPALLLTIP DTFANVSEA            DDRYICDRFY PNDLWVVFQ FQHIMVGLIL PGIVILSCYC IISKLSHSK GHQKRKALKT            TVILILAFEA CWLPYYIGIS IDSFILLEII KQCEFEFNTV HKWISITEAL AFFHCLNPI            LYAFLGAKFK TSAQHALTSV SRGSSLKILS KGRGGHSSV STESESSFH SS            atggcgtctt tctctgctga gaccaattca actgacctac tctcacagcc atggaatgag A            ccccagtaa tctctccat ggtcattctc agccttactt ttttactggg attgccaggc            aatgggctgg tgcgtgggt ggctggcctg agatgcagc ggacagtga cacaattgg            ttcctccacc tcactctggc ggacctctct tgcgtcctct ccttgccctt ctgcgtggct            cacttggtc tccagggaca tggccctac ggcagggttc tatgcaagct catccctcc            atcattgtcc tcaacatgtt tgccagtgc tctctgctta ctgccattag cctggatgc            tgccttggtg tattcaagcc aatctggtgt cagaatcatc gcaatgtagg gatggcctgc            tctatctgtg gatgtatctg ggtggtggct tttgtgatgt gcatcctgt gttcgtgtac            cgggaaatct tcactacaga caaccataat agatgtggct acaaattgg tctctccagc            tcattagatt atccagactt ttatggagat ccactagaaa acaggctct tgaatacatt            gttcagccgc ctggagaaat gaatgatagg ttagatcctt cctctttcca acaaatgat            catccttggg cagtcctccac tgccttccaa cctcaaacat tcaagacc tctcgtgat            tcactcccta ggggttctgc taggttaaca agtcaaaatc tgtattctaa tgtattaaa            cctgctgat tggctcacc taaaatcccc agtgggttct ctattgaaga tcacgaacc            agccactgg ataatctga tgccttctc tctactcatt taaagctgtt ccttagcgt            tctagcaatt ccttctacga gtctgagcta ccacaaggtt tccaggatta ttacaattta            ggccaattca cagatgacga tcaagtgcga acacccctcg tggcaataac gatcactagg            ctagtgggtg gtttctctgt gccctctgtt atcatgatag cctgttacag ctctattgtc            tccgaatgc aaaggggccc cttcgccaag tctcagagca aaaccttctc agtggcgtg            gtgggtgtg ctgtcttct tgcgtgtg actccatacc acatttttg agtccctgca            ttgcttactg accpagaac tcccttggg tgcctggga tgcctgtatgc         </p>	Homo sapiens

78 Complement NP\_004045.1 MASFAETNS TDLLSQPWE PPVILSMVIL SLTELLGLPG NGLVLWVAGL KMORTVNTIW P Homo sapiens  
 Component 3a  
 Receptor 1

attgctctag catctgcaa tagtgcttt aatcccttc tttatgcct ctgggggaaa  
 gatttagga agaaagaaag gcagtcatt cagggaattc tggaggcagc cttcagtgag  
 gagctcacac gttccaccca ctgtccctca aacaatgtca tttcagaaaag aaatagtaca  
 actgtgtga

Homo sapiens

79 Complement NM\_001736  
 Component 5a  
 Receptor 1

Homo sapiens

agggggagcc caggagacca gaacatgaac tcttcaatt ataccacccc tgattatggg A  
 cactatgatg acaaggatac cctggacctc aacacccctg tggataaaac ttctaacacg  
 ctgcgtgttc cagacatcct gcccttggtc atctttgcag tcttcttctt ggtgggagtg  
 ctgggcaatg ccctggtggt ctgggtgacg gcattcgagg caagcggac catcaatgcc  
 atctgggtcc tcaacttggc ggtagccgac tctctctctt gccctggcgt gccatcttg  
 ttacgtcca ttgtacagca tcaccactgg ccctttggcg gggccgctg cagcatcctg  
 cctccctcca tctgtctcaa catgtacgcc agcatcctgc tcttgccac catcagcgcc  
 gaccgcttcc tgctggtgtt taaacccatc tggcgccaga acttcgagg ggcgggctg  
 gcctggatcg cctgtgccgt ggttggggt ttagccctgc tctgacct accctcctc  
 ctgtaccggg tggccggga gtagtacttt ccacaaaagg tgtgtgtggt cgtggactac  
 agccacgaca aacggcgga gcagccgtg gccatcgtcc gctggtctt gggcttctg  
 tggcctctac tcacgtcac gattgttac actttcatcc tgctcggag cgtggagcgc  
 agggccacgc ggtccacca gactccaag gtgtgtgtg cagtgtgtgc cagtttctt  
 atcttctggt tgcctacca ggtgacgggg ataagtatgt ccttctctga gccatcgtca  
 cccaccttcc tgctgctgaa taagtggac tctctgtgtg tctcttgc ctacatcaac  
 tgctgcatca acccatcat ctacgtgtgtg gccggccagg gcttccagg cggactgagg  
 aaatccctcc ccagcctcct ccggaacgtg ttgactgaag agtccgtgt tagggagagc  
 aagtcattca cgcgtccac agtgacact atggccaga agaccaggc agtgtaggcg  
 acagcctcat gggccactgt ggcctggtt ccccttctt cccggccatt cctcctctg  
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 cctgtcttcc ccagacttgt cctccttctt ccagcggag ccttctcct cctcctcatt  
 tgaagggtga acacttctt ctaggagga cctccccc cccaccccc cccacacac  
 catctttcca tcccaggct ttgaaaaaca aacagaaacc cgtgtatct ggatatctc  
 atatggcaat aggtgtgaac agggaaacta gaatacagac aagtagaag attctcgtt  
 aaaaaaatgt attatttta tggcaagtgt gaaaatagt aactggaatc tcaaaagtcc  
 tttgggacaa aacagaagtc catggagta tctaagctct tgtaagttag ttaatttaaa  
 aaagaaat aggtgagag cagtggctca cgcctgtaat cccagaactt tgggaggcta  
 agtgtgggtg atcacctgag gtcaagagtt ccagaccagg ctggccagca tgggtgaaacc

TV

80	758	Complement Component 5a Receptor 1	NP_001727.1	<p> cgtctgtac taaaaatata aaaaataaac tgggcatggt agtgggtgccc tgtaatccca  gctactggg aggtgaggt ggagagaattg ctggaacctt ctgagtgag gtgtgtggtga  gccatgacg caccactga ctctagcctg ggtgagctcg ggaggtcttg tctcaaaaagc  aaagcaaaaa caaaaacaaa aacacctaaa aacctgcag tttgtttgt actttgtttt  taaatatgc tttctattt gagatcattg caaactcaac acaattgtaa gtaatgatac  agagggatct tgtgtacct taccagcc tccccaatg gcaacatctt gcaaaactac  aatgtagtct cataaccagg atattgacat tgatacagtg aagatacagg acattctcat  caccacagg atccccagga tgcccacttc cctccacccc cacaccccag ccgtgtccct  aaccctggc aaccaggaa ccaactcca tttctataat gttgtcattt caagaatgtt  attcaatgga atcatatagt atgtaacctg ttttgagctt aaaaaaaaaa gtatacatga  ctttaatgag gaaaataaaa atgaatattg aaaaaaaaaa ctttagag  MNSFNYYTPD YGHYDDKDTL DLNTPVDKTS NTLRVPDILA LVIFAVVFLV GVIGNALVVW P  VTAFEAARTI NAIWFLNLAV ADFLSCLALP ILFTSIVQHH HWPFGGAACS ILPSLILLNM  YASILLATI SADRELLVFK PIWCQNERGA GLAWIACAVA WGLALLLTIP SFLYRVVREE  YFPKVLGCV DYSHDKRRER AVAIVRLVLG FLWPLLLTI CYTFILLRTW SRRATRSTKT  LKVVAVVAS FFIFWLPYQV TGIMMSFLEP SSPTFLLLNK LDSLCVSEFAY INCCINPIIY  VWAGQGFQGR LRKSLPSLLR NVLTEESVVR ESKSFRSTV DTMAQKTQAV </p>	Homo sapiens
81	767	Calcitonin Receptor-like Receptor	NM_005795	<p> gcacgagga acaacctctc tctctscagc agagagtgtc acctcctgct ttaggacctat  caagctctgc taactgaatc tcatcctaata tgcaggatca cattgcaaaag ctttcaactct  ttcccacctt gctgtgggt aaatctcttc tgcggaatct cagaaagtaa agttccatcc  tgagaatatt tcacaaagaa tttccttaag agctggactg ggtcttgacc cctggaattt  aagaaattct taagacaaat gtcaaatatg atccaagaga aaatgtgatt tgagtctgga  gacaattgtg catatcgtct ataataaaaa acccatacta gcctatagaa acaaatattt  gaataataaa aaccatact agcctataga aacaataatt tgaagattg ctaccactaa  aaagaaaaact actacaactt gacaagactg ctgcaaaact caattggtca ccacaacttg  acaaggttgc tataaaaaa gattgctaca acttctagt tttgtttatc agcatatttc  atttgggctt aatgatggag aaaaagtga cctgtattt tctggttctc ttgccttttt  ttatgattct tgttacagca gaattagaag agagtcttga ggactcaatt cagttgggag  ttactagaaa taaatcatg acagctcaat atgaatgta ccaaaagatt atgcaagacc  ccattcaaca agcagaaggc gtttactgca acagaacctg ggatggatgg ctctgctgga  acgatgttgc agcaggaaat gaatcaatgc agctctgccc tgattacttt caggactttg  atccatcaga aaagttaca aagatctgtg accaagatgg aaactgggtt agacatccag  caagcaacag aacatggaca aattataccc agtgaatgt taacaccccac gagaagtga  agactgcact aaattgttt tacttgacca taattggaca cggattgtct attgcatcac  tgcttatctc gcttggcata tttttttatt tcaagagcct aagttgcca aggattacct  tacacaaaaa tctgttcttc tcatgtttt gtaactctgt tgtaacaatc attcacctca  ctgcagtggc caacaaccag gccttagtag ccacaaatcc tgttagttgc aaagtgtccc  agttcatcca tctttacctg atgggctgta attacttttg gatgctctgt gaagcattt  acctacacac actcattgtg gtggccgtgt ttgcagagaa gcaacattta atgtgtatt  atcttcttgg ctggggattt ccaatgattc ctgcttctat acatgccatt gctagaagct  tatattacaa tgacaattgc tggatcagtt ctgataccca tctcctctac attatccatg </p>	Homo sapiens

82	767	Calcitonin Receptor- like Receptor	NP_005786.1	MEKXCTLYFL VLLPFFMILV TAELEESPED SIQLGVTRNK IMTAQYECYQ KIMQDP IQQA P EGVYCNRTWD GWLCWNDVAA GTESMQLCPD YFQDFDPSEK VTKICDQDGN WFRHPASNRT WTNYTQCNVN THEKVTALN LFYLTIGHG LSIASLLISL GIFFYFKSL S CQRITLHKNL FFSFVCNSV TIHLTAVAN NOALVATNPV SKVSOFIHL YLMGCNIFYWM LCEGIYLTIL IVVAVFAEKQ HLMWYFLGW GFPLIPACIH AIARSLYND NCWISSDTHL LYIHPICA ALLVNLFFLL NIVRVLITKL KVTHQAESNL YMKAVRATLI LVPLLGIEFV LIPWRPEGKI AEEVYDYIMH ILMHFQGLLV STIFCFNGE VQAILRRNWN QYKIQGNSE SNSEALRSAS YTVSTISDGP GYSHDCPSEH LNKSIHDIE NVLLKPENLY N ggggactacg gagagctctg caggagcgc agggccccgc ccgggccaaag ggagcttctg A tcccgaggac cagggatgc gaaggattg cccctgtggt gtcactttct cagtcatttt gagctcagcc taatcaaaga ctgaggttat gaagtgcgtc ctatagtgcc ttgcagatac caccttcgc accatcacca ctgacctcct ctgacctcct gtagctgggc tcaaatgaca ttcagtagca agacatcaaa ggtgacatgg catccaaatt agggctactt ccacagaaat tcccttaac ttccttagg ggaagtcct tccaagagaa gatgactgcg ggagacaacc ccagctagt	Homo sapiens
83	832	Cannabinoid Receptor 1	NM_001840		Homo sapiens

84	Cannabinoid Receptor 1	NP_001831.1	<p> ccccagagac caggtgaaca ttacagaatt ttacaacaag tctctctcgt ccttcaagga  gaatgaggag aacatccagt gtggggagaa cttcatggac atagagtgtt tcatggtcct  gaacccagc cagcagctgg ccattgcagt cctgtccctc agctgggca ccttcacggt  cctggagaac ctctgtgtgc tgtgcgtcat cctccactcc cgcagctccc gctgcaggcc  ttcctaccac ttcatcgga cctggcggt ggcagacctc ctggggagtg tcatttttgt  ctacagcttc attgacttc acgtgtcca ccgcaaatg agcggcaacg tgtttctgtt  caaaactgggt ggggtcacgg cctcctcac tgcctcctg ggcagcctgt tctcacagc  catcgacagg tacatatcca ttacaggcc cctggcctat aagaggattg tcaccaggcc  caaggccgtg gtggcgtttt cctgatgtg gaccatagcc attgtgatcg ccgtgctgcc  tctcctgggc tggaaactgc agaaactgca atctgtttgc tcagacattt tcccacacat  tgatgaaacc tacctgatgt tctggatcgg ggtcacaccg gtaactgttc tgttcacgt  gtatgcgtac atgtatatc tctggaaggc tcacagccac gccgtccgca tgattcagcg  tggcacccag aagagcatca tcatccacac gtctgaggat ggaagggtac aggtgacctg  gccagaccac gccgcaggt acattaggtt agccaagacc tctgtcctga tctgtgtgt  gttgatcatc tctgtgggccc cctgtgtgc aatcatggtg tatgatgtct ttgggaagat  gaacaagctc attaagacgg tgtttgcatt ctgcagatg ctctgcctgc tgaactccac  cgtgaacccc atcatctatg ctctgaggag taaggacctg cgacacgctt tccggagcat  gttccctct tgtgaaggca ctgcgagcc tctggataac agcatggggg actcggaactg  cctgcacaaa cagcaaaa atgcagccag tgttcacagg gccgcagaaa gctgcatcaa  gagcacggtc aagattgcca agttaacct gtctgtgtcc acagacacgt ctgccgaggc  tctgtgagcc tgatgcctcc ctggcagcac aggaagaaa ttttttttt taagctcaaa  atctagaaga gtctattgtc tcttggtta tttttttta actttaccat gctcaatgaa  aaggtgattg ccacatgtca cttattgtct tagtttccgt ttgggctaatt ctccgggggt  tctgaggaaa ccttt </p>	Homo sapiens
832	Cannabinoid Receptor 2	NM_001841	<p> MKSILDGLAD VPADQWITE FYNKSLSSF ENEENIQCE NFMIDIECFV LNPSQOLAIA  VLSLTGTF VLENLLVLCV ILHSRSLRCR PSYHFIGSLA VADLLGSVIF VYSFIDFHVF  HRKDSRNVEL FKLGGVTASF TASVGSLELT AIDRYISHR PLAYKRIVTR PKAVVAFCLM  WTIAIVIAVL PLLGNCEKL QSVCSDFPH IDETVLMFWI GVTSVLLLF VYAYMYILWK  AHSHAVRMIO RGTQKSIH TSEDGKVQVT RPDQARMDIR LAKTLVLILV VLIICWGPLL  AIMVYDVFGK MNKLIKTVFA FCSMLCLNS TVNPIIYALR SKDLRHAFRS MFPSCEGTAQ  PLDNSMGDS D CLHKHANNA SVHRAAESCI KSTVKIAKVT MSVSTDTSAE AL </p>	Homo sapiens
85	Cannabinoid Receptor 2	NM_001841	<p> caggtctctgg gagaggacag aaaaacaactg gactcctcag cccccggcag ctcccagtc A  ccagccacc ccaacacaa ccaagcctt ctagacaagc tcagtggaa ctgaagggcc  caccocatgg aggaatgctg ggtgacagag atagccaatg gctccaagga tggcttggat  tccaaccta tgaaggatta catgatcctg agtgggtccc agaagacagc tgttctgtg  ttgtgactc ttctgggct gctaagtgc ctgggaactg tggctgtgct ctatctgac  ctgtcctccc accaaactcc cgggaagccc tcatacctgt tcattggcag ctggctggg  gctgactcc tggccagtgt ggtctttgca tgcagctttg tgaatttcca tgtttccat  ggtgtggatt ccaaggctgt ctctctgctg aagattggca gcgtgactat gacctcaaca  gcctctgtg gtagcctct gctgaccgcc atbgaccgat acctctgct gcgctatcca </p>	Homo sapiens

86	Cannabinoid Receptor 2	NP_001832.1	MEECWVTEIA NGSKDGLDSN PMKDYMLISG PQKTAVAVLC TLLGLLSALE NVAVLYLILS P SHQLRRKPSY LFIGSLAGAD FLASVVFACS FVNFHVHGV DSKAVFLKI GSVTMTFTAS VGSLLLTALD RYLCLRYPPS YKALLTRGRA LVTLGIMWVL SALVSYLPLM GWTCPCRPSCS ELFPLIPNDY LLSWLLFIAF LFSGLIYTYG HVLWKHQHV ASLSGHQDRQ VPGWARMRLD VRLAKTLGLV LAVLLICWFP VLALMAHSLA TTLSDQVKKK EAPRSSVTET EADGKITPWP DSRDLDLSDC LRSGEIRSSA HHCLAHWKKC VRGLGSEAKE	Homo sapiens
87	Leukocyte Antigen CD97	NM_001784	agcctgtgga gacgggacag cccgtgtcca ctcaactctt cccctgcgcg tccctgcggc A agctccaacc atgggaggcc gcgtcttct cgcattctgt gtctggctga ctctgcgggg agctgaaacc caggactcca ggggtgtgc ccggtgtgc cctcagaact cctcgtgtgt caatgccacc gcctgtcgt gcaatccagg gtccagctct tttctctaga tcatcaccac cccgacggag actgtgacg acatcaacga gtgtgcaaca ccgtcgaaaag tgtcatgcgg aaaattctcg gactgtgga acacagaggg gagctacgac tgcgtgtgca gcccgggata tgagcctgtt tctggggcaa aaacattcaa gaatgagagc gagaacacct gtcaagatgt ggacgagtgc agtccgggc agcatcagtg tgacagctcc accgtctgt tcaacacct gggttcatac agtgcgcgt gccgcccagg ctggaagccc agacacggaa tcccgaataa ccaaaaggac actgtctgtg aagatatgac tttctccacc tggacccccg cccctggagt ccacagccag acgctttccc gattcttcga caaagtccag gacctgggca gagactccaa gacaagctca gccgaggtca ccattccaga tgtcatcaa ttggtggatg aactgatgga agctcctgga gacgtagagg cccctggcgc accgttccgg cacctcatag ccacccagct gctctcaaac cttgaagata tcatgaggat cctggccaag agcctgccta aagggccctt	Homo sapiens

88	922	Leukocyte Antigen CD97	NP_001775.1	<p> cactacatt tcccttcga acacagagct gacctgatg atccaggagc ggggggacaa  gaacgtcaact atgggtcaga gcagcgcaag catgaagctg aattggctg tggcagactgg  agccaggat ccaggccccc ccgtggcggg catctctcc atccagaaca tgacgacatt  gctggccaat gcctccttga acctgcattc caagaagcaa gccgaactgg aggagatata  tgaagcagc atccgtggtg tccaactcag acgcctctct gccgtcaact ccactcttct  gagccacaac aacaccaag aactcaactc ccccatcctt ttgccttct cccacttga  gtctccgat ggggaggcgg gaagagaccc tctgccaag gactgatgc ctggggccacg  gcaggagctg ctctgtgctt tctggaagag tgacagcagc agggaggggc actggggccac  cgaggtctgc caggtgctgg gcagcaagaa cggcagcacc acctgccaat gcagccacct  gagcagctt acgatactta tggctcatta tgcctgctt ctgcctgctg ctgtgcaccc tcaacttctt  caccagggtg ggaactggcg tgtaactctt caccatacac ctgcacctct gcactgcct  gtggtgctgg ccacccagg gctgcgcac tccctgctt cactgagaac gaaggcgcc aggtggggct  ctctgtggc tccaccatct tccctggcgg catcgagaac gaaggcgcc aggtggggct  ggctggccgc ctggtggcgg ggctgtgca ctactgttct ctggcgctt tctgtggat  gagctcgaa ggctggagc tctacttct tgggtgctg gtgttccaa gccaggcct  gagtacgcgc tggctctgct tgatcgctt ggcgtgccc ctgctcatcg tggcgctctc  ggctgccatc tacagcaagg gctacggcgg cccagatgc tgctggttg actttgagca  ggcttctctc tggagcttct tgggacctgt gacctcatc attttgtca atgtgtcat  ttctgtgact accgtctgga agctcactca gaagtcttct gaaatcaatc cagacatgaa  gaaattaaag aaggcgagg cgctgacct cagggccatc gcgcagctct tctgttggg  ctgcacctgg gtcttggcc tgttcatctt cgacgatcgg agcttggctg tgacctatgt  gtttaccatc ctcaactgcc tgcaggcgc ctctctctac ctgctgcact gctgtctcaa  caagaagggt cgggaagaat accggaagt ggcctgccta gtgtctggg ggaagcaagta  ctcagaatc acctccaca cgtctggcac tggccacaat cagaccggg cctcagggc  atcagagtcc gcatatgaa ggcgcattgt tctggacggc ccagcagctc ctgtggccac  agcagcttg tacacgaaga ccatccatcc tccctctgct caccactcta ctccctccac  cctccctccc tgatcccgtg tgccaccagg agggagtggc agctatagtc tggcaccaaa  gtccaggaca cccagtgggg tggagtggg gccactggct ctgctgtgg ctgctctct  gtccacctt gtgacctagg gtggggacag gggctggccc agggctgcaa tgcagcatgt  tgccctggca cctgtggcca gtactcgga cagactaagg gcgctgtcc catcctggac  tttctctc atgtcttgc tgcagaactg aagagactag gcgctggggc tcagcttccc  tcttaagcta agactgatgt cagaggcccc atggcgaggc ccttggggc cactgcctga  ggctcacgtt acagaggcct gccctgcctg gcttcttctc aggttctcac tgtgtgaag  gtgtgagacg ttgtgtaatg tgttttctc tgttaaat tttcagtgtt gacactaaa  attaaacaca tgcatacaga aaaaaaaaaa aaaaaaaaaa a </p>	<p> Homo sapiens  FSEIITPTE P  ENTCQDVDEC  WTTPPGVHSQ  TVCEDMTFT  DVEALAPFVR  HLIATQLLSN  MGQSSARMKL  NWAVAAGAE  IRGVQLRLS  AVNSIFLSHN </p>
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[illegible]



[illegible]

ccgcaggac gccgcggcga cgagcacgcg gagggccttc gcctccacgg atgcaccatg  
 ccggtgtgag gagcatctgt tcttcccact ctctgcagtt aacaaaccca accaaaccca  
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 ggccctggag atgtacccag gcaccgcga gccctgggccc cccaacacca cctccccega  
 gctcaacctg tcccaccgc cagtaactga tggcctgtt cctctcgtgc cttacacca tcttctctt  
 ggagcaccag cagtaactga tggcctgtt cctctcgtgc cttacacca tcttctctt  
 ccccatcgcc ttgtgggca acatcctgat cctggtgtg acatcagct tccgcgagaa  
 gatgaccatc ccgacctgt acttcatcaa cctggcgtg gcggacctca tccctgtggc  
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 tcatgtgcgg atcctt

Homo

P

EHOQYVIGLF

ALANGTGELS

INLSHPLLGT

PAAPNTTSPE

GLEMYPGTAQ

MDVTSQARGV

NP\_001496.1

G Protein-

965

92

93	978	Cholecystoki nin A Receptor	NM_000730	LSCLYTIELF	PIGFVGNILI	LVVNISFREK	MTIPDLYFIN	LAVADLILVA	DSLIEVFNLH	sapiens
				ERYDYIAVLC	TFMSLELQVN	MYSSVFFLTW	MSFDRIYALA	RAMRCSLFRT	KHARLSKGL	
				IWMASVSATL	VFPTAVHLQH	TDEACFCFAD	VREVQWLEVT	LGFIVPFAII	GLCYSILIVRV	
				LVRAHRHRL	RPRRQKALRM	ILAVLVVFFV	CWLPEVNFIS	VHLLQRTQPG	AAPCKQSFRH	
				AHPLTGHIVN	LAAFNSCLN	PLIYSFLGET	FRDKLRLYIE	QKTNLPALNR	FCHAALKAVI	
				PDSTEQSDVR	FSSAV					
				ggaatggctg	aaaaagccca	cactgggaaa	tcactccctc	cctgctcctc	cacggcaggt	A
				tgcattctcg	agacgtctcg	gtcattagag	gaatgagccg	ggagttagca	attcaccagc	
				tctccagcac	ttggtggaaa	gcagcaggca	aggatggatg	tggttgacag	cctcttctg	
				aatggaagca	acatcactcc	tcctgtgtaa	ctcgggctcg	aaaatgagac	gcttttctgc	
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				cgggtctggc	agacaaaatc	ccatgctttg	aaggtgattg	ctgctacctg	gtgcctttcc	
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				tccagtgagg	actcttcaag	gtctcttttc	atccttcatc	tgattccaga	gcactgctcc	
				agtggggcca	tgattgggtt	ctaggcaggt	caaagcagga	tatgttaagt	aacactcaac	
				catcag						
94	978	Cholecystoki nin A Receptor	NP_000721.1	MDVVDLSLVN	GSNITPPCEL	GLENETLFCL	DQPRSKEWQ	PAVQILLYSL	IFLLSVLNGT	P
				LVITVLIRNK	RMRTVTNIFL	LSLAVSDML	CLFCMPENLI	PNLLKDFIFG	SAVCKTTTYF	
				MGTSVSVSTF	NLVAISLERY	GAICKPLQSR	VMQTKSHALK	VIAATWCLSF	TIMTPYPIYS	
				NLVPFTKNNN	QTANMCRFL	PNDVMQSWH	TFLLILFLI	PGIVMMVAYG	LISLELYQGI	
				KFEASQKXSA	KERKPTSTSS	GKYEDSDGCV	LQTRPRPKL	ELRQLSTGSS	SRANRIRNS	
				SAANLMAKKR	VIRMLIVIV	LFFLCWMPIF	SANAWRAYDT	ASAERRLSGT	PISFILLLSY	

95

1103 Corticotropin releasing factor Receptor 2  
NM\_001883

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MSASVPPQ  
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gagcgctggg atgggaatag cagaaccacc atgtcttcag tgattgaac tcataccca  
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tgctctctgg

Homo sapiens

96

1103 Corticotropin releasing factor  
NP\_001874.1

MDAALLHSL EANCSLALAE ELLLDGWGPP LDEGPYSYC NTTLQIGTC WPRSAAGALV P  
ERPCEYFNG VKYNTTRNAY RECLENGTWA SKINYSQCEP ILDDKQRYD LHYRIALVWN  
YLGHCVSVAA LVAAFLFLA LRSIRCLRNV IHNLLITTFI LRNVWFLLQ LVDHEVHESN

Homo sapiens

**NM 000794**

97

Dopamine  
Receptor D1

Homo sapiens

EVWCHCITTI	FNYPVVTNFF	WMFVEGCYLH	TAIVMTYSTE	RLRKCLFLEI	GWCIFFPIIV
AWAIGKLYE	NEQCWFGEK	GDLDVYIQG	PIILVLLINF	VLEFNIVRIL	MTKLRASITTS
ETIQYRAVK	ATLVLLPLG	ITYMLFFVNP	GEDDLSQIME	IYENSFLQSF	QGFFVSFVYC
FFNGEVS	RRKWRHQDH	HSLRVP	MSIPTSPTRI	SFHSIKQTAA	V
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gcccctctgc	tgctttccaa	cacacaatta	atccgtttc	caaatacat	ccagttgtatt

127/448

Homo  
sapiens

P

98 1240 Dopamine  
Receptor D1 NP\_000785.1

ttctgtgttg ttcatagtca atcaaacagg gacactacaa acatgggggag ccataaggga  
 catgtctttg gcttcagaat tgtttttaga aatttattct tatcttagga ttaccacaa  
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 atgtgtaact tctaga

MRTLNTSAMD GTGLVVERDF SVRILTACFL SLLILSTLLG NTLVCAAVIR FRHLRSKVTN  
 FFVISLAVSD LLVAVLMPW KAVAEIAGFW PFGSFCNIWV AFDIMCSTAS ILLNCVISVD  
 RYWAISSPFR YERKMTPKAA FILISVAVTL SVLISFIPVQ LSWHKAKPTS PSDGNATSLA  
 ETIDNCDSLL SRTYAISVV ISFYIPVAIM IVTYTRIYRI AQKQIRRIAA LERAAVHAKN  
 CQTTTGNGKP VECSQPESSF KMSFKRETKV LKTLSSVIMGV FVCCWLPPFI LNCILPFCGS  
 GETQPFCDIS NTFDVFVWFG WANSSLNPII YAFNADFRKA FSTLLGCYRL CPATNNAIET  
 VSINNGAAM FSSHHEPRGS ISKECNLVYL IPHAVGSSD LKKEAAGIA RPLEKLSPAL  
 SVILDYDIDV SLEKIQIPITQ NGQHPT

Homo  
sapiens

A

99 1241 Dopamine  
Receptor D5 NM\_000798

ggcacgagggc agggctgaag ttgggaccgc gcacagaccg cccctgcagt ccagcccgaa  
 atgtgcccgc caggcagcaa cggcaccgcg taccgggggc agttcgtctt ataccagcag  
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100	1241	Dopamine Receptor D5	NP_000789.1	<p> aaaaa  tatacagacgt cccagatgg tgaccctgtt gctgagtctg tctgggagct ggactgcgag  gggagattt ctttagaca aataacacct ttaccccgga atggattcca ttaaacctgca  ttaagaaacc cctcatgga tctgcataac cgcacagaca ctgacaagca cgcacacaca  cgaaataca tgcctttcca gtgctgtccc ctttatcatg tgtttctgtg tagtagctcg  tgtgcttaga aacctcacc cattgattgg tagttcgaag aattggcaga atcagttgca  ataaactcag tcaaatgtac ccagctacc agagatggac caacgacct atgagagaag  agagtatggt gctgggtcct taaaaaaa atgatactt ggtccttaaa aaatatgctc  tcccctccct ttttaaaaa atgcttgtt cagtcacttg tttgtgttg aattgatttt  taaacagcag gttgtgtgtg tgtgcagtga tgtggtggga gcacagcttt cctgggtctg  gattcccggt gctttgtgct tatgtcattt cttctctctg tctggtgggg ggcctcttta  ccatagctta agaagtatcc ctgatttatt ctggtgtcta ataacacag attatttga  aaaaa  aa  </p>	Homo sapiens
101	1242	Dopamine Receptor D2	NM_000795	<p> VCAAI  IMCSTASILN  HRDQAASWGG  MIVTYTRIYR  IMGVFVCCWL  FNADFQKVEA  GNREVDNDEE  agagcctggc  gatgatgatc  gacagacccc  ttcgggcaacg  aactacctga  tgggttgtct  ttcgtcactc  atcgacaggt  cgccgggtca  ctcctcttcg  gtggtctact  atcaagatct  cgagctttca  atgaaactct  gtggaggctg  cccgagagga  ccgtcccaac  catgccaaag  aaaaccgga  aaagccactc  ttcatcacac  </p> <p> YPGQFALYQQ  LRANMTNVFI  LCVISVDRYW  LDLPNNLANW  IAQVQIRRI  PFILNCMVP  QLLGCSHFC  EGFDRMFQI  ctccacggc  tggagaggca  actacaacta  tgctgggtgtg  tgctcagcct  acctggaggt  tggacgtcat  acacagctgt  ccgtcatgat  gactcaataa  cctccatcgt  acattgtcct  gggcccacct  gcaccgttat  cccgcgagc  cccggtacag  atggtctcca  accaccccaa  cctccctcaa  agatgctcgc  acatcctgaa  </p> <p> LAQNAVCGS  ALLVMPWKAV  KMTQRMALVM  DVNAENCDS  SLERAHAQ  FCSGHPEGP  RTPVETVNIS  YQTSPPDGPV  ctcagcgcc  gaactggagc  ctatgccaca  catggctgtg  cgcagtggcc  ggtaggtag  gatgtgcacg  ggccatgcc  ctccatcgt  cgacagacc  atgagtgca  tccagaccag  gtggtcctgt  aacgagtga  gtgcccttca  cgcaagcgag  ctaaaggga  aatggaggtt  gagatggaga  cagagagctg  ccccatcca  cagcactccc  gattgccaa  gacctagc  cattgttctc  catacactgt  </p> <p> VVTACLLTLL  AEVAGYWPFG  VGLAWTSLIL  LNRTYAIS  DTSLRASIK  FDVFWFGWA  VFHKEIAAAY  IHMMPNAVTP  GEISLDKITP  cactgaatct  acgggtcaga  tgctcatcgc  agggcgtga  gacctcctg  tggaatttca  gcaggattca  tgaacttgtg  atcgcgcta  ccttcacct  tcattgccaa  ttgtcacct  tcaacacca  actgtactca  tcccagtgaa  tgcttccca  caccagccca  accagctgac  ccaaaccaga  tccagacct  tctccagca  tcatctgtg  tcccgcctgt  </p>	Homo sapiens

102	1242	Dopamine Receptor D2	NP_000786.1	<p>gacctaacgt ggctggggcta tgtcaacagc gcggtgaacc ccatcatcta caccaccttc  aacattgagt tccgcaaggc cttcctgaag atcctccact gctgactctg ctgacctgcc  gcacagcagc ctgctttccca cctccctgcc cagggccggc agctcaacc ttgcaaacg  tgagcaggaa ggctgggtg gatcgccctc cctctcttag ccccgccagg cctgacagt  ttcgcttgcc tccatgctcc tcaactgccg cacacctca cctgcccag ccatagagtc  tgagctgggc atggtaccag ccctggggtt ggcccagct caggggcagc tcatagagtc  ccccctcca cctccagtc cctatcctt ggcaccaag atgcagccgc cttccttgac  cttccctctg ggctctaggg ttgctggagc ctgagtcagg gccagagggc tgaattttct  ctttgtggg cttggcgttg agcaggcggg gggagagat ggacagttca caccctgcaa  ggccacaggg aggcagcaaa gctctcttgc cgagagcca ggcaactca gtcctgggag  acctatgtaa ataccagat gcaggttggg cccgagagat tcccaagcca aaaccttag  ctccctccc caccctgat tcccagtg ttgacctcta cttccaggc tagtcggac ccaactcacc  ccgttacagc tcccagtg gttccacat gctctgagaa gaggagccct catcttgaag  ggcccaggag ggtctatgg gagagaaact ccttgcccta gccacacctg ctgacctctg  acggccctgc aatgtatccc ttctcacagc acatgctggc cagcctgggg cctggcaggg  aggtcaggcc ctggaactct atctggcctt gggctaggga catcagaggt tctttgaggg  actgcctctg ccacactctg acgcaaaacc acttctctt tctattcctt ctggccttct  ctctctctg tttcccttcc ctccactgc ctctgctta gaggagccca cggctaagag  gctgctgaaa acctctggc ctggcctggc cctgcccctga ggaaggaggg gaagctgcag  cttgggagag cccctgggc ctgagactctg taacatcact atccgatgca ccaactaat  aaaacttga cgagtcacct tc</p>	Homo sapiens
103	1243	Dopamine Receptor D3	NM_000796	<p>MDPLNLSWDYD DDLERQNSWR PFNGSDGKAD RPHNYYYATL LTLIAVIVF GNVIVCMAVS P  REKALQTTN YLIVSLAVD LLVATLVPW VVYLEVVGW KFSRIHCDIF VTLDVMMCTA  SILNLCAISI DRYTAVAMP LYNTRYSSKR RVTVMISIV VLSFTISCPL LFGLNNADQN  ECILANPAFV VYSSIVFYV PFIVTLIVYI KIYIVLRRR KRVNTRSSR AFRAHLRAPL  KGNCTHPEDM KLCTVIMKSN GSFPVNRVRV EAARRAQELE MEMLSSTSP ERTRYSPIPP  SHHQLTLDPD SHHGLHSTPD SPAKPEKNGH AKDHPKIAKI FEIQTMENCK TRTSLKTMRS  RKLSQQKEKK ATQMLAIVLG VFIIICWLPFF ITHILNIHCD CNIPPVLYSA FTWLGYNVSA  VNPIIYTTFN IEFKAFIKI LHC</p>	Homo sapiens



Homo  
sapiens

P

104 1243 Dopamine Receptor D3 NP\_000787.1

gctcctgtcg gcgcgtggcc ctcatgatca cggcgtctcg ggtactggcc tttgctgtgt  
 cctgcccctct tctgtttggc tttataacca caggggaccc cctgtctgc tccatctcca  
 acctgattt tgcattctac tttcattctg tgccttctta cctgcccctt ggagtgactg  
 tcttgttcta tgccagaatc tatgtgtgct tgaacaaaag gagacggaaa aggatcctca  
 ctgacagaaa cagtcagtgc aacagtgtca ggcctggctt ccccaacaa accctctctc  
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 cctgagttcc caccatagcg ccaagctca gcttagaagt tcgaaaaactc agcaatggca  
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 agaaggcaac ccaaatggtg gccattgtgc ttggggcctt cattgtctgc tggctgccct  
 tcttcttgac ccatgttctc aataccact gccagacatg caacgtgtcc ccagagcttt  
 acagtggcac gacatggctg ggtacgtga atagcctct caacctgtg atctatacca  
 ccttcaatat cgagttcccg aaagccttcc tcaagatcct gtcttgcctga gggagc

MASLSQLSSH INYTCGAENS TGASQARPHA YYALSICALI LAIVFNGLV CMAVLKERAL  
 QTTNVLVVS LAVADLLVAT LVMPWVVYLE VTGGWNFSR ICCDFEVLTD VMCTASILN  
 LCAISIDRYT AVMPVHYQH GTGQSSCRV ALMITAVWVL AFVSCPLF GFNTGDPTV  
 CSISNPDEFVI YSSVVSFYLP FGVTLVYAR IYVWLKQRRR KRILTRQNSQ CNSVRPGFPQ  
 QTLSPDPAHL ELKRYYSICQ DTALGGPGFQ ERGELKREE KTRNSLPTI APKLSLEVRK  
 LSNGLSTSL KIGPLQPRGV PLREKKATQM VAIVLGAFIV CWLPFFLTHV LNTHCQTCHV  
 SPELYSATTW LGVNSALNP VIYTFNIEF RKAFLKILSC

Homo  
sapiens

A

105 1244 Dopamine Receptor D4 NM\_000797

atggggaacc gcagcacgc ggacgcggac gggctgctgg ctggggcgcg gcggcgccgcg  
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 ggcgtgtgc tcatcggcgc ggtgctcgcg ggaactcgc tctgtgctg ggcgtggcc  
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106	1244	Dopamine Receptor D4	NP_000788.1	<p> cctgctgtgt cctggtcccc gcggtggtgc agcgccgtca cctgggtggg ctacgtcaac  agcgccctca acccgtcat ctacactgtc ttaacgccg agttccgcaa cgtcttcgcg  aaggccctgc gtgctgtctg ctgagccggg caccgccgga cgcgcccg cctgatggcc  aggcctcagg gaccaaggag atggggaggg cgtttttgta cgttaattaa acaattcct  tccc  MGNRSTADAD GLLAGRPAA GASAGASAGL AGQGAALVGV GVLIGAVLA GNSLVCVSPA P  TERALQPTN SFIVSLAAD LLLALLVLPL FVSEVQGA WLLSPRLCDA LMAMDVMLCT  ASIFNLCAIS VDRFVAVAVP LRYNRQGSR RQLLIGATW LLSAAVAAPV LCGLNDVRGR  DPAVCRLEDR DYVYSSVCS FFLPCPLMLL LYWATERGLQ RWEVARRAKL HGRAPRRPSG  PGPPSPTPPA PRLPQDPCG DCAPPAPGLP RGPCGPDCA P AAGLPPDPC GPDCAPPAPG  LPQDPCGPD CAPPAPGLP RGPCGPDCA P AAGLPPDPC GPDCAPPAPG  PDAVRAAALP POTPPQTRR RRAKITGRER KAMRVLPVVV GAFLLCWTFP FVWHITQALC  PACSVPPRLV SAVTWLGYVN SALNPVIYTV FNAEFNVFR KALRACC  ccgaggagcc tgcgtgctc ctggctcaca gcgctccggg cgaggagagc gggcgggaccg A  gggggctggg ccggtgcggg ccgagagga gcgagagga gcgagagga agcgggggcg  ccggggcgcg gacggcgcg ggtcgggg ccgctctg ccgctctg ccgctctg ccgctctg  gatcccgcg ccagggcgc cgggtggagc cccgctctt cgcacagcc cggagcgct  cgccccctc cgccggcg gcggtgcgc gcggtgcgc atgcgtcg gcgagagga ccggggagc  accctagcg cttcccgag cgtggcgcca cgcgctcga cgcgctcga cgcgctcga  cctcgtcct cgcctggca atcgccatca cgcgctcga cgcgctcga cgcgctcga  ggctgctgg caactgctt gtcattgttc gcggtgcgc gcggtgcgc gcggtgcgc  ccaccaacat ctacatctc aacctggc cgtggcgcc cgtggcgcc cgtggcgcc  ctttccagag tgccagtag ctgagtgaga cgtggcgcc cgtggcgcc cgtggcgcc  ctgtgctc catcgactac tacaatatgt tcaccagcat cgtggcgcc cgtggcgcc  gtgtgacg ctacatcgt gtcgcccac cgtggcgcc cgtggcgcc cgtggcgcc  ccaaggccaa gctgatcaac atctgtatc cgtggcgcc cgtggcgcc cgtggcgcc  tcattgtcat ggctgtgac cgtggcgcc cgtggcgcc cgtggcgcc cgtggcgcc  ccagccccag ctggtactgg gacaggtga ccaagatctg cgtggcgcc cgtggcgcc  tggtgccc cctcatcgc accgtgtgt atggcctcat gctgctgccc cgtggcgcc  tgccctgt gtcgggctcc aaggagaaagg accgagcct gcggcgcc cgtggcgcc  tgctggtgt gttggcgcc ttcgtgtgt gttggcgcc cgtggcgcc cgtggcgcc  tctggagcgt gttggagac gaccggcg gacagcgc tcaaccccg gctcagcct ttcctgacg  gcacgcgc ggtgacgc aatagcgc ccaaccccg gacagcgc cgtggcgcc cgtggcgcc  agaaactcaa gcgtgctc cgcagctct gcgcaagcc cgtggcgcc cgtggcgcc  gcagcttcag ccggcccc gcagccacgc cgcgagcgc cgtggcgcc cgtggcgcc  ccgatgtcc cggcggtgg cgtggcgcc gacagggcca tccggcccc agcgcccc  ccctagtgt accggagcc cactagatc cactagatc cactagatc cactagatc  tgggccag agataggtc gagggtttt gagggtttt gagggtttt gagggtttt  acgggacgg gccctagat gggcatggg tgggctctt ggggctctt ggggctctt  cagatcaat gcgagtgcc tctggtctg ggggctctt ggggctctt ggggctctt  ggaaagccag tgactccag agaggagc gactgtggc tctacaactg agtctttaa </p>	Homo sapiens
107	1267	Opioid Receptor, delta 1 (OPRD1)	NM_000911	<p> ggcgggaccg ggcctagat gggcatggg gtttggggc ccaaggctct agtgggggc  gagatcaat gcgagtgcc tctggtctg ggggctctt ggggctctt ggggctctt  ggaaagccag tgactccag agaggagc gactgtggc tctacaactg agtctttaa </p>	Homo sapiens

108	1267	Opioid Receptor, delta 1 (OPRD1)	NP_000902.1	caggcatct ccaggaagg ggggcttcaa ccttgagaca gcttcgggtt ctaacttgga gccggacttt cggagttggg ggggtccgggg ccc MEPAPSAGAE LQPPLFANAS DAYPSAFPSSA GANASGPPGP GSASSIALAI AITALYSAVC P AVGLLGNVLV MFGIVRYTKM KTATNIYIFN LALADALATS TLPFQSAKYL METWPFGE LL CKAVLSIDYY NMFTSIFLT NMSVDRIYIAV CHPVKALDFR TPAKAKLINI CIWVLASGVG VPIMMAVTR PRDGAUVCM L QFPSPSWYWD TVTKICVFLF AFVVFILIT VCYGLMLLRL RSVRLLSGSK EKDRSLRRIT RMVLVVVGA F VVCWAPIHIF VIVWTLVDID RRDPLVVAAL HLCIALGYAN SSLNPVLYAF LDENFKRCFR QLCRKPCGRP DPSSFSRPRE ATARERTAC TPSDGPGGGR AA	Homo sapiens
109	1424	Duffy Antigen	NM_002036	gggcctgaac caaacgggtgc catgggggaa cgtctgcaca gggtagtat ggggccaggc A. cccagagtcc cttatcccta tgccctcat ttccctgct gttggccct cagctcttat atctcttctt ttctctctc atctttctc ccttccgct ttttctctt ccttcaaa tcttttctt tctctcttc ctatgctagc cctctagtc cctctgtgt ccttccctt gcctttgagt cagttccatc ctggctctt ggtgccttc cttctgacct tgcactgctc ctccagcccc agctgcccc gcttccccag gactgttct cctccggctc ttccaggtcc ctgctttgtc cttttccact gtcgcactg catctgactc ctgcagagac cttgttctcc cacccgacct tctctctgt cctccctcc cactgcccc tcaattccca ggagactctt ccggtgtaac tctgatggc tctctgggt atgtctcca ggcggagctc tccccctcaa ctgagaactc agtcagctg gacttcgaag atgtatgaa ttcttctcat ggtgtgaatg attccttccc agatggagac tatgatgcca acctggaagc agctgcccc tgcactcct gtaacctgct ggatgactct gcactgacct tcttctact caccagtgc ctgggtatcc tagctagcag cactgtctc tctatgctt tccagacct cctccgctg cagctctgcc ctggctggcc tgtcctggca cagctggctg tggcagctgc cctctcagc attgtgtgc ccgtcttggc ccagggcta gtagcactc gcagctctgc cctgtgtagc ctgggctact gtgtctggta tggctcagcc tttgcccagg ctttgcctg aggtgacct gcctccctgg gccacagact gggtagcagg caggtccagc gcctaccct ggggtcact gtgggaattt ggggagtgcc tgcctactg acactgctg tcacctggc cagtgtgct tctgggtggac tctgcacct gatatacagc acggagctga aggttttga ggcacacac actgtagcct gtcttgccat cttgtcttg ttgccattgg gttgtttgg agccaagggg ctgaagaagg cattgggtat ggggccaggc cctggatga atacctgtg ggcctggttt atttctggt ggcctcatgg ggtggttcta ggaactgatt tctgtgtgag gtccaagctg ttgctgtgtg caacatgtct gcccagcag gctctggacc tgcctgtgaa cctggcagaa gccctggcaa ttttgcactg tgtggctacg cccctgctcc tgcctctatt ctgccaccag gccaccgca cctcttgcc ctctctgcc cctctgaag gatggtctt cctctggac accttgga gcaaatccta gttctcttc cactgtcaa cctgaattaa agctacact gccttgtg NP_002027.1	Homo sapiens
110	1424	Duffy Antigen	NP_002027.1	MASSGYVLOA ELSPSTENS QLDFFVWNS SYGVNDSFPD GDYDANLEAA APCHSCNLLD P DSALPFIIT SVLGILASST VLFMLFRPLF RWQLCPGWPV LAQLAVGSAL FSIVVPVLAP GLGSTRSSAL CSLGYCWYGF SAFAQALLLG CHASIGHRLG AGQVPGLTLG LTVGIWGVAA LLTLPVTIAS GASGGLCTLI YSTELKALQA THTVACLAIF VLLPLGLFGA KGLKALGMG PGPMNMLWA WFIWFPHGV VLGLDFLVR KLLLLSTCLA QQALDLLNL AEALAILHCV ATPLLLALFC HQATRTLPLS LPLPEGWSSH LDTLGSKS	Homo sapiens

111	1451	EBV-Induced Gene 2	NM_004951	ggaattccct gatatacacc tggaccacca ccaatggata tacaatggc aaacaatttt A actcgcct ctgcaactcc tcagggaat gactgtgacc tctatgcaca tcacagcacg gccaggatag taatgcctct gcattacagc ctgctcttca tcattggct cgtgggaaac ttactagcct tggctgtcat tgttcaaac aggaaaaaa tcaactctac caccctctat tcaacaaatt tggatgattc tgatatactt ttaccaccg ctttgcctac acgaatagcc tactatgcaa tgggctttga ctggagaatc ggagatgct tgtgtaggat aactgcgcta gtgttttaca tcaacacata tgcaggtgtg aactttatga cctgcctgag tatgaccgc ttcattgtcg tggcgaccc tctacgctac aacagataa aaaggattga acatgcaaaa ggcgtgtgca tattgtctg gattctagta ttgctcaga cactccact cctcatcaac cctatgtcaa agcaggaggc tgaaggatt acatgcatgg agtatccaaa ctttgaagaa actaaatctc ttccctggat tctgcttggg gcattgttca taggatattg acttccactt ataatcattc tcactgtcta ttctcagatc tgcctgcaac tcttcagaac tgcacaaaca aaccactca ctgagaaatc tgggtgtaac aaaaaggctc tcaacacaa tattcttatt attgttgtgt ttgttctctg ttccacacct taccatgttg caattattca acatatgatt aagaagcttc gtttctctaa ttctctgtaa ttagctgcaa gacattcgtt ccagatttct ctgcacttta cagtatgcct gatgaacttc aattgctgca tggacccttt tatctacttc tttgcattga aagggtataa gagaaaggtt atgaggatgc tgaacggca agtcagtgtg tcgatttcta gtgctgtgaa gtcagccctt gaagaaaatt cactgaaaat gacagaaaacg cagatgatga tacattccaa gcttccaaat ggaagtgaa atggattgta ttttggttta tagtgacgta aactgtatga caaactttgc aggacttccc ttataaagca aaataattgt tcagcttcca attagtattc ttttatattt ctttcattgg gcactttccc atctccaact cggaagtaag ccaagagaa caacataaag caacacacat aaagcacacat aaaatgcaa ataaatattt tcatttttat ttgtaaacga atacaccaa aggagcgct cttataaact cccaatgtaa aaagtattgt ttataaaaa aatttaatta ttatttcttg ccaacaaatg gctagaaagg actgaataga ttatatattg ccagatgta atactgtaac atacttttta ataacatat ttcttaaatc caaatttctc tcaatgttag atttaattcc ctcaataaca ccaatgtttt gtttgtttc gttctgggtc ataaaacttt gtttaagggaac tcttttgga taaagagcag gatgctgc MDIQMANNFT PPSATPQGN CDLYAHSTA RIVMPLHYSL VFIIGLVGNL LALWIVQNR P KKINSTLLYS TNLVISDILF TTALPTRIAY YAMGFDWRIG DALCRITALV FYINTYAGVN FMTCLSIDRF IAVVHPLRYN KIKRIEHAKG VCIFWILVF AOTLPLLINP MSKQEAERIT CMEYPNFEET KSLPWILLGA CFIGYVLP LI ILICYSQIC CKLFRTAKQN PLTEKSGVNK KALNTIILII VVEVLCFTPY HVAIIQHM IK LRFSNFLEC SQHRSFQISL HFTVCLMNFN CCMDPFIYFF ACKGYKRKVM RMLKRQSVS ISSAVKSAPE ENSREMTETQ NMHSKSSNG K	Homo sapiens
112	1451	EBV-Induced Gene 2	NP_004942.1	gagacattcc ggtgggggag tctggccagc ccgagcaacg tggatcctga gagactccc A aggtaggcatt ttgcccgggt gggacgcctt gccagagcag tgtgtggcag gccccgtgg aggatcaaca cagtggctga acactggaa ggaactggta cttggagtct ggacatctga aacttggtc tgaactgcg cagcgccac cggacgcctt ctggagcagg tagcagcatg cagccgcctc caagtctgtg cggacgcgc ctgggttgcg tggttcttgc ctgcggcctg tcgcggtatct ggggagagga gagaggcttc ccgctgaca gggccactcc gcttttgcaa	Homo sapiens
113	1486	Endothelin B Receptor	NM_000115		Homo sapiens

accgcagaga taatgacgcc accactaag acctatggc ccaagggttc caacgccagt  
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115	1488	Endothelin A NM_001957 Receptor	<p>           agctttgtgc gttctgcct aatttttata tcttctaagc aaagtgcctt aggatagctt            ggatgagat gtgtgtgaaa gtatgtacaa gagaaaacgg agagagaggg aaatgaggtg            gggttgagg aaaccatgg ggacagattc ccattcttag cctaacgttc gtcatgacct            cgtcacatca atgcaaaagg tctgtatttt gtccagcaa acacacagtc aatgttctca            gagtgaactt cgaataaaat tgggccaag agtttaact cggctttaa atagcccaa            attttactt tgttttctt ttaataggct ggccacatg ttggaataa gctagtaag            ttgttttctg tcaatattga atgtgatgt acagtaacc aaacccaac aatgtggcca            gaaagaaaga gcaataataa ttaattcaca caccatagg attctattt taaatcacc            aaaaactgt tctttaatt catcccaatc acttttccag aggcctggtt tcatagaagt            catttagac tctcaattt aaattaattt tgaatcacta atattttcac agtttattaa            tataattaat tctatttaa attttagatt atttttatta ccatgtactg aatttttaca            tctgatacc ctttcttct ccatgtcagt atcatgttct ctaattatct tgcctaaatt            tgaactaca cacaataaag atacttgcat tattataat aaaaatgcat tcaagtgcct            tttaaaaaa atgtttgatt caaaacttta acatactgat agtaagaaa caattataat            ttctttacat actcaaaacc agatagaaa aggtgctat cgttcaactt caaaacatgt            ttcttagtat taaggacttt aatatagcaa cagacaaaat tattgttaac atggtatgta            cagctcaaaa gatttataa agattttaac ctattttct cctattatc cactgctaatt            gtggtgatgt gtcaaacac ctttagtat tgatagctta catatggcca aaggaatata            gtttatagca aaacatgggt atgctgtagc taactttata aaagtgaat ataacaatgt            aaaaaattat atatctggga ggaatttttg gtgcctaaa gtggctatag ttactgattt            tttattatgt aagcaaaacc aataaaaatt taagtttttt taacaactac cttatttttc            actgtacaga cactaattca ttaataacta attgattgtt taaaagaaa ataaatgtga            caagtggaca ttatttatgt taaatataca attatcaagc aagtatgaag ttattcaatt            aaaaatgcac atttctggtc tctggg            MQPPSLCGR AIVALVLAG LSRWGERG FPPDRATPLL QTAEIMTPPT KTLMPKGSNA P            SLARSLAPAE VPKGDRTAGS PPRTISPPPC QGPIEIKETF KYINTVVSCL VFVLGIIGNS            TLLRIIYKKN CMRNGPNILI ASLALGDLH IVIDIPINV KLLAEDWPEF AEMCKLVPEFI            QKASVGITVL SICALSIDRY RAVASWSRIK GIGVPKWTAV EIVLIWVSV VLAVPEAIGF            DIITMDYKGS YLRICLLHPV QKTAFMQFYK TAKDWWLFSF YFCLPLAITA FFYTLMTCEM            LRKKSQMQLA LNDHLKQRR VAKTVFCLVL VFALCWLPLH LSRILKLTLY NONDPNRCEL            LSFLLVLDYI GINMASLNSC INPIALYLV KRFKNCFKSC LCCWCQSFEE QKSLEEKQSC            LKFKANDHGY DNFSSNKEYS SS            gaattcgcgg ccgcctcttg cggctccaga gtggagtggga aggtctggag ctttgggagg A            agacggggag tacagactgg agcgtgttc ctcgggagtt tctcttttcg tgcgagccct            cgcgcgcgcg tacagctatc ccgctggtct gacgattgtg gagagcggt ggagagggctt            catccatccc acccggtcgt cgcggggat tggggtccca gcgacacct cccgggagaa            gcagtgccta ggaagtcttc tgaagccggg gaagtgtgc agccgaagcc gccgcgcgc            cggagcccg gacacggcc accctccgc ccaccaccc tcgctttctc cggcttctc            tggccaggc gccgcgcga cccggcagct gtctggcac gccgagctcc acggtgaaaa            aaaaagtga ggtgtaaaa gacacaaagt gcaataagag atatttctc aaatttgcct         </p>	Homo sapiens

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aagagcaaca gcgaagacc attccacag ccgagaggc agaagcagca gcagcgtg  
gcctaaccc agcaagagca gcagcagcag ccctgaccc tcccacagca gcaacgatct



120	1676	Formyl Peptide Receptor-Like Receptor	NP_001453.1	caacttctcc actcctctga atgaatatga agaagtgtcc tatgagtctg ctgggtacac tgttctgagg atcctcccat tgggtgtgct tgggttcacc tttgtctcgg ggggtcctggg caatgggctt gtgatctggg tggctggatt ccggatgaca cgcacagtca ccaccatctg ttacctgaac ctggccctgg ctgacttttc tttcacggcc acattaccat tccatctgtg ctccatggcc atgggagaaa aatggccttt tggctgggtc ctgtgtaagt taattcacat cgtgtgggac atcaacctct ttggaagtgt cttcttgatt ggtttcattg cactggaccg ctgcatttgt gtcctgcac cagtctggc ccagaaccac cgcactgtga gtctggccat gaagtgatc gtcgacctt ggattctgc tctagtctt accittgccag ttttctcttt tttgactaca gtaactattc caaatggga cacatactgt actttcaact ttgcattcctg ggtggcacc cctgaggaga ggctgaaggt ggcattacc atgctgacag ccagagggat tatccggtt gtcattggct ttagcttgcc gatgtccatt gttgccatct gctatgggct cattgcagcc aagatccaca aaagggtcat gattaaatcc agccgtccct tacgggtcct cactgctgtg tggcttctt tcttcatctg ttggtttccc tttcaactgg ttgcccctct ggccacgtc tggctcaag agatgttgt ctatggcaag tacaataca ttgacatcct ggttaacca acgagctccc tggccttctt caacagctgc ctcaaccca tgccttacgt ctttgtggc caagacttcc gagagagact gatccactcc ctgcccacca gtctggagag ggccctgtct gaggactcag ccccaactaa tgacacggct gccaatctg ctteacttcc tgcagagact gagttacagg caatgtgagg atgggttcag ggatatttg agttctgttc atcctacct aatgccagtt ccagcttcat ctacccttga gtcattattga ggcattcaag gatgcacag tcaagtattt attcaggaaa aatgcttttg tgcctctgat ttggggctaa gaaatagaca gtcaggctac taaaatatta gtgtatttt ttgtttttg acttctgcct atacctggg gtaagtggag ttgggaaa caagaagaga aagaccagt gggatttgt aagacttagat gagatagcgc ataataaggg gaagacttta agatataaag taaaatgttt gctgtagtt ttttatagct attaaaaaaa atcagattat ggaagtttt tctattttt agtttgcata gagttttctg tttctttttc ttacatcatg agtggacttt gcattttatc aaatgcattt tctacatgta ttaagatggt catattattc tcttctttt atgtaaatca ttataataa tgttcattaa gttctgaatg ttaactact cttgaattcc tggaataaac cacacttagt cctgatgtac ttataatatt tatatctcac aggagtgtgt tagaatctt gtgtttatgt ttatatactg ttatttcaat ttttctacta tccctgctaa gttttcatag aaaaataagg acaaaagaaa acttgaatg gtctctgaaa aggaattgag aagtaattcc tctgattctg ttttctggtg ttatatctt attaatatt cagaaaaatt C	121	1681	Follicle Stimulating Hormone Receptor	NM_000145	cgctgagatc tgtggaggtt tttctctgca aatgcagaaa gaaatcaggt ggatggatgc A ataattatgg cctgctcctt ggtctctttg ctggcattcc tgagctggg ctcaggatgt catcatcgga tctgtcactg ctctaacagg gttttctct gccaagagag caaggtgaca gagattcctt ctgacctccc gaggaatgcc attgaactga ggtttgtcct caccaagctt	Homo sapiens	Homo sapiens
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122	Follicle Stimulating Hormone Receptor	NP_000136.1	<p> cagtcaccc aaaaaggtgc attttcagga ttgggggacc tggagaaaa agagatctct  cagaatgatg tcttgaggtg gatagaggca gatgtgttct ccaacattcc caaattacat  gaaattagaa ttgaaaaggc caacaacctg ctctacatca cccctgaggc cttccagaac  cttcccaacc ttcaatatct gtaatatatc aacacaggta ttaagcacct tccagatgtt  cacaagattc attctctcca aaaggtttta cttagacattc aagataacat aaacatccac  acaattgaaa gaaattcttt cgtggggctg agctttgaaa gtgtgattct atggctgaat  aagaatggga ttcaagaat acacaactgt gcattcaatg gaacccaact agatgcagt  aatctaagcg ataataataa tttagaagaa ttgcctaag atgttttcca cggagcctct  ggaccagtca ttctagatat ttcaagaaca aggatccatt cctgcctag ctatggctta  gaaaatctta agaagctgag gccaggtcg acttacaact taaaaagct gctactctg  gaaaagcttg tcgcccctcat ggaagccagc ctacactatc ccagccattg ctgtgctttt  gcaaacctgga gacggcaaat ctctgagctt catccaattt gcaacaaatc tattttaagg  caagaagtgg attatatgac tcagggtagg ggtcagagat cctctctggc agaagacaat  gagtcagct acagcagagg atttgacatg acgtacactg agtttgacta tgacttatgc  aatgaagtgg ttgacgtgac ctgctccctc agccagatg catccaacct atgtgaagat  atcatggggt acaacatcct cagagtcctg atatggttta tcagcatcct ggccatcact  gggaacatca tagtgctagt gatcctaact accagccaat ataaactcac agtccccagg  ttccttatgt gcaacctggc cttgtctgat ctctgcattg gaattacact gctgctcatt  gcatcagttg atatccatac caagagccaa tatcacaact atgccattga ctggcaact  ggggcaggct gtgatgctgc tggcttttct actgtctttg ccagtgagct gtcagtcctac  actctgacag ctatcacctt ggaagatgg cataccatca cgcattgccat gcagctggac  tgaaggtgc agtcccgca tgcgtccagt gtcagtgtga tgggctggat ttttgctttt  gcagtgccc tctttcccat ctttggcatc agcagctaca tgaaggtgag catctgcctg  cccatggata ttgacagccc ctgttcacag ctgtatgtca tgtccctctc tgtgctcaat  gtcctggcct ttgtggtcat ctgtggctgc tatatccaca tctacctcac agtgcgggaa  cccaacatcg tctctcctc tagtgacacc aggatcgcca agcgcattgg catgctcatc  ttcactgact tctctgcat ggcaacctt tctttctttg ccatttctgc ctccctcaag  gtgccccca tcactgtgtc caaagcaag attctgctgg ttctgtttca ccccatcaac  tctgtggcca acccttctc ctatgccatc ttaccacaaa actttcgag agatttcttc  attctgtga gcaagtgtgg ctgctatgaa atgcaagccc aaatttatag gacagaaact  tcatccactg tccacaacac ccattccaaagg aatggccact gctcttcagc tccagagtc  accagtgtt ccactacat acttgcctc cttaagtcatt tagcccaaaa ctaaaacaca  atgtgaaaat gtatctgagt attgaatgat aattcagtc ttgcttttga aggtatgtc  acaaggagct gacagtgtt ctacacattt catctaattt aatatcttgc gcatacctt  aaggtaaat ggtcaggaa tattaatcc atgtgataca ttaggaagct gaattattag  taacaacaat aataataaa gaatgcaata ctgtaaaaaa cgggccgcga att  MALLIVSLA FLSLGSCHH RICHCSNRVE LCQESKVTET PSDLPNAIE LRFVTKLRV P  IQKGAFFSGF DLEKIEISQN DVLEVIEADV FSNLPKLHEI RIEKANNLLY TPFAFQNL P  NLQYLLISNT GIKHLPDVHK IHSLSQKVLDD IQDNIINIHTI ERNSFVGLSF ESVLWLKN  GIQEIHNCAF NGTQLDANL SDNNNLEELP NDVFHGASGP VILDISRTI HSLPSYGLE N  LKKLRARSTY NLKLPITLEK LVALMEASLT YPSHCCAFAN WRRQISELHP ICNKSILRQE </p>	Homo sapiens
1681				

123	1726	G Protein- Coupled Receptor RDC1	U67784	<p>VDYMTQARGQ RSSLAEDNES SYSRGFDMTY TEFDYDLNE VDVTCSPKP DAFNPCEMIM</p> <p>GYNILRLVLIW FISILAITGN IIVLVILITS QYKLTVPFL MCNLAFAADLC IGIYLLLIAS</p> <p>VDIHTKSQYH NYAIDWQTGA GCDAAAGFFTV FASELSVYTL TAITLERWHT ITHAMQLDCK</p> <p>VQLRHAASVM VMGWIFAFEA ALFPFIIGISS YMKVSIOLPM DIDSPLSOLY VMSLLVLNLV</p> <p>AFWVICGCIY HIYLTVRNPN IVSSSSDTRI AKRMAMLIPT DFLCMAPISE FAISASLKVP</p> <p>LITVSKAKIL LVLFHPINSC ANPFLYAIPT KNFRDRFFIL LSKCGCYEMQ AQIYRTETSS</p> <p>TVNTHPRNG HCSSAPRVTS GSTYILVPLS HLAQN</p> <p>gccaaactccg tgggtggtctg ggtgaatatc caggccaaga ccacaggcta tgacacgcac A</p> <p>tgctacatct tgaacctggc cattgccgac ctgtgggttg tccctaccat cccagtcctgg</p> <p>gtgggtcagtc tcgtgcagca caaccagtg cccatggcg agctcacgtg caaagtcaca</p> <p>cacctcatct tctccatcaa cctctcagc agcatcttct tccctacgtg catgagcgtg</p> <p>gaacgtacc tctccatcac ctactcacc aacaccccca cagcaggaa gaagatggta</p> <p>cgccgtgtcg tctgcacct ggtgtggctg ctggccttct gctgtctct gcccttctac</p> <p>tactacctga agaccgtcac gtctgcgtcc aacaatgaga cctactgccg gtcccttctac</p> <p>cccgagcaca gcatcaagg gtggctgac gccatggagc tggctccctg tgccttgggc</p> <p>tttgccgttc ccttctccat tctcctgctc tctacttcc tgcctggccag agccatctcg</p> <p>ggtgccagtg accaggagaa gcacagcagc cggaagatca tcttctccta cgtgggtggtc</p> <p>ttccttgtct gctgggtgct ctaccacgtg gcgggtgctg tggacatctt ctccatcctg</p> <p>cactacatcc ctttccactg ccggtggag cagccctct tcacggccct gcattgtcaca</p> <p>cagtgcctgt cgtgtgtgca ctgctgcgtc aacctgtcc tctacagctt catcaatcgc</p> <p>aactacaggt acgagctgat gaaggccttc atcttcaagt actcggccaa aacagggtctc</p> <p>accaagctca tcatgctcct cagagctcct gagacggagt actcgtgctt ggagcagagc</p> <p>accaaatgat ctgccctgga gaggtcctg gagcgggtta ctgtgttttg aacagggtga</p> <p>tgggccctat ggttttctag agcaaaagcaa agtagcttctg ggtcttgatg cttgagtaga</p> <p>gtgaagaggg gagcacgtgc cccctgcctc cattytctct tctccttgat gagcagctg</p> <p>tcatttggct gtgcgtgctg acagttttgc aacaggcaga gctgtgtcgc acagcagtcg</p> <p>tgtgcgtcag agccagctga ggacaggctt gcctggactt ctgtaagata ggattttctg</p> <p>tgtttctga atttttata tgggtgattg tatttaaat ttaagacttt atttctcac</p> <p>tattggtgta cctataaat gtatttgaaa gttataataa ttttaaatat tgtttgggag</p> <p>gcatagtgct gacatatatt cagagtgttg tagttttaag gttagcgtga ctttcagttt</p> <p>tgactaagga tgacactaat tgttagctgt ttgaaataa tatatatata aatatataa</p> <p>tatatgccag tcttgctga aatgttttat ttaccatagt ttatatctg tgggtgtgtt</p> <p>tgtaccggca cgggatattg aacgaaaaact gctttgtaac gcagtttgtg acattaatag</p> <p>tattgtaaaag ttacatttta aataaaaca aaaactgttc tggactgcaa atctgcacac</p> <p>acaaacgaaca gttgcatttc agagagtctt ctcaatttgt aagttatttt tttttaataa</p> <p>agatttttgt tctctaaaaa aaaaaaaaaa aaaaa</p> <p>MDLHLFDYAE PGNFSDISWP CNSSDCIVVD TVMCPNPNK SVLLYTLSEI YIFIFVIGMI P</p> <p>ANSVVVWNI QAKTGYDTH CYILNLAIAD LWVLTIPW VVSLVQHNQW PMGELTCKVT</p> <p>HLIFSINLFS GIFFLTMSV DRYLSITYFT NTFSSRKKM VRRVCILVWL LAFVSLPDT</p> <p>YLLKTVTSAS NNETYCRSFY PEHSIKEWLI GMELVSVVLG FAVPFSIIAV FYFLAPRAIS</p> <p>ASSDQEKHSS RKLIIFYVV FLVCWLPYHV AVLLDIFSIL HYIPFCTCRLE HALFTALHVT</p>	Homo sapiens
124	1726	G Protein- Coupled Receptor RDC1	AAA62370.1	<p>MDLHLFDYAE PGNFSDISWP CNSSDCIVVD TVMCPNPNK SVLLYTLSEI YIFIFVIGMI P</p> <p>ANSVVVWNI QAKTGYDTH CYILNLAIAD LWVLTIPW VVSLVQHNQW PMGELTCKVT</p> <p>HLIFSINLFS GIFFLTMSV DRYLSITYFT NTFSSRKKM VRRVCILVWL LAFVSLPDT</p> <p>YLLKTVTSAS NNETYCRSFY PEHSIKEWLI GMELVSVVLG FAVPFSIIAV FYFLAPRAIS</p> <p>ASSDQEKHSS RKLIIFYVV FLVCWLPYHV AVLLDIFSIL HYIPFCTCRLE HALFTALHVT</p>	Homo sapiens

125	1762	Galanin Receptor GalR1	NM_001480	QCLSLVHCCV NPVLYSFNR NYRYELMKAF IFKYSAKTGL TKLIDASRVS ETEYSALEQN AK	Homo sapiens
				atccccgtag aatccgtcca gtctctgctc gcgcacgctg acttctaagg ggcgcgatt A tcagccgagc tgttttcgcc tctcagttgc agcagagaag cccctggcac cgcactctat ccaccaccag gaagctccc aaagagctc tcgcccctgt gacgactcgg aatccccgga aaagccggga gggagtccga ggcgccagc cactggggag gtggcgctgg gcgcgcggga tgccggggga gccctctctg caggagccgc acagtgcact gctgcgctg ggcagtgcg gggaagccgc gcgggaagga gcggtccga gcaacagtg cagcacgcag ccgctccggg agccaggga aaccgcggc gaagatctgg agcgtaagg cggagagaag ggtctttcca cctgcgggc tcagccggc ggtacccctc tcccaggctc cgtggtcgcg cagcggggcg aggcggccgg gcaggggacc ccagtgcctc cgagatcacc gtcccttccc gagaaggtec agctccgggc tcccgaacc accctctctc agaaggtcgc ggcgcaaga cggtgccacc aggcacgggc accggatccc cgctcccgtt ggctcgcgc tcgggggaag ctacagactcc taaaactcga ctctccgtg tttgcggcg gacccctggc caccgccggc ccctgctatc ccgcccctccc tcccgcggc cccgcggcg gcgcgggaca gcccgcggg ccatggagct ggcggtccgg aaactcagc agggcaacgc gactggccg gaggccccc gcccggagcc cggcccgctg ttcggcctcg gcgtggagaa cttcgtcacg ctggtggtgt tcggcctgat cttcgcgctg ggcgtgctg gcaacagcct agtgatcac gtgtggcg gcagcaagcc gggcaagccg cggagacca ccaactgtt cactctaac ctgagcatcg ccgacctggc ctacctgtc ttctgcatc ccttcaggc caccgtgtac gcctggcca cctgggtgt gggcgcttc atctgcaagt tcatccacta cttcttcacc gtgtccatgc tggtagcat cttaacctg gccgcgatg ccgtggaccg ctactggcc atcgtgcact cgcggcgctc ctcctccctc aggtgtccc gcaacgcgtt gctggcctg ggcgtgatc ggcgcgtgtc cattgccatg gctcggccg tggcctacca ccaggcgctc ttcacccgc gcgccagcaa ccagacctc tgcgtggagc agtggccga cctcgccac aagaaggcct acgtggtgtg caccttcgtc ttcggctacc tgcgtccgt cctgctcatc tgcttctgt atgccaaagt ccttaatcac ttgcataaa agttgaagaa catgtcaag agtctgaag catccaagaa aaagactgca cagacagttc tgggtggtgt tgggtgtttt ggaatctctt ggctgccgca ccacatcac catctctggg ctgagtttgg agttttccc ctgacgccg cttccttct cttcagaatc accgcccact gctggcgta cagcaattcc tccgtgaatc ctatcattta tgcatcttc tctgaaaatt tcagggaagg ctataaaca gtgttcaagt gtcacattcg caaagattca cactgagtg atactaaaga aaataaaagt cgaatagaca cccaccatc aaccattgt actcatgtgt gataaaagt agagtatcct tatggttag tttccatata agtggaccag acacagaaac aaacagaatg agctagtaag cgatgctga actgttatc ttaacaagaa ttcaagtcgt ttaatttaa tcccacgtgt gttaaaaagt actttgatcc atttaggaaa ttcctaggtc tagtgagaat tatttttcaa ttttatttta gttctaaat atgtttcaga acaaaaagac aatgctgtac agttttatc ctcttcagac atgaaggga acatatatat tccatatata tgttcaactc ttcataagatt gtgaactggc ccatcaatat ggtcaggaat attgcagtc tacattttta agcaatttta tttagaaaa aaatttgagc tttaattctt taattttaag agaagtaata ttgtgaacta tgtatttttaaat aatatgatca tggaacacaca atgatgaatt ttttgccat ttacatagac atatctatta agtgggaaga	

126	1762	Galanin Receptor GalR1	NP_001471.1	aggttttctg aagtctgttt gacagggtgg catttgcttc caattgttagc tagcgacacag agcttttgaa gctgtcatt atgagataca gtcgggtttac ctcaggagtc aattcagtg tgtactgggtg acctgggatg cagtagtagg cactgttgat tcaaatattat cctgtgaaac tggttttata gagttaacaa aacagagtca gagaccactg tcttaacagt ggaagatgca aataagtttt tgagaataaa actggatttt gaaattttac attagtactt gacaaaagtt ttcatatttg cttgaatgga acctactaaa agagagatg aaaaaaatc agcagggttg atgtagataa taatttctat gggaccaaaag actagacaga attcagtaag tcaatgaaag taatgggtcat gctgtacat aaagcatatt tcatgtttga tttagatgac attcaaaaaa aatcatggga ctgaatatac ctgggtatc ctatcttgta caaatgcatg ctttttcatt aaatttgtaa tgatgttaa tgaacatttc caccaaacat tatttctctt aaaaatgta atttgggggtt aaaccatca ccatttgaat ttcaaatgta gttttcatga caattttata ttgatgtgtg ttacaatga gaaaatggca tgaataatatt aaattgtctt gtatcg SKPGKPRSTT MELAVGNLSE GNASWPEPPA PEPGLFEGIG VENFVTLVVF GLIFALGVLG NSLVITVLAR P VSIFTLAAMS VDRYVAIVHS RRSLSLRVSR NALLGVGCIW ALSIAMASPV AYHQGLFHPR ASNQTFQWEQ WPDPRHKAY VVCTFVFGYL LPLLLICFCY AKVLNHLHKK LKNMSKKSEA SKKTAQTVL VVVVFGISW LPHHIIHLWA EFGVFLTPA SFLFRITAHK LAYNSNVNP IIYAFISENF RKAYKQVFKC HIRKDSHLS D TKENKSRIDT PPSTNCTHV	Homo sapiens
127	1808	Gastric Inhibitory Polypeptide Receptor	NM_000164	ggcagcgggtg gcaggggctg caggagcaag tgaccaggag caggactggg gacaggcctg A atgcacctg cagcaaccag acctctgcc gccctcacga tgactacctc tccgactctg cagctgtgc tgcggctctc actgtgggg cgtgtaccag cgtggggaac ggtaccgcag ggagtggcag aaggggcaga cggcggggga cgtgtaccag accgcttca ggcctgcctt gtaacgggtc ctlogatatg gagaccttg gagactatgc tgacccaat gccactgccc gtgcgtcctg cccctggtac tacgtctgct gggactatgc tgacccaat gccactgccc gccactgccc cccctggtac ctgccctggc accaccatgt ggctgcaggt ttgctcctcc gccagtgtgg cagtgatggc caatggggac ttggagaga ccatacacia ttgtgagaacc cagagaagaa tgaggccttt ctggaccaaa ggctcatctt ggagcgggtg caggctcatgt acactgtcg ctaactcctg tctctcgcca cactgtgtgt agcctgtctc atcttgagtt tgttcaggcg gctacattgc actagaaact atatccacat caacctgttc acgtctttca tgcgtcgagc tgcggccatt ctcagccgag accgtctgct acctgacct tgcctccacc ttggggacca ggccttgctg ctgtggaacc agccctcgc tgcctgcgc gctgggtggag ggcgtctacc tgcacagtct cctggtgtc ggtgccaact acacgtggct gctgggtggag ggcgtctacc tgcacagtct cctggtgtc gtggaggct ccgagagggt ccaactccgc tactacctgc tccctggctg gggggccccc gcgcttttcg tcatccctg ggtgatcgtc aggtacctgt acgagaacac gcagtgtgg gagcgcaacg aagtcaggc catttggttg attatacggg cccccatct catgaccatc ttgattaatt tctcatattt tatccgcat ctggcatctc tctgtccaa cctgaggaca cggcaaatgc gctgcggga ttaccggctg aggtgggtc gctccacgt gacgtgtg ccccctgctg gtgtccacga ggtgggtgtt gctccgtga cagaggaaca ggcggggg gccctgcgt tgcgcaagct cggctttgag atctctca gctcctcca ggccttctg gtcagcgtcc tctactgctt catcaacaag gaggtgagtc cggagatccg ccgtgggtg caccactgcc gcctggcgcc cagcctgggc gagaggaac gccagctccc gagcgcgccc	Homo sapiens

128	NP_000155.1	Gastric Inhibitory Polypeptide Receptor	1808	<p>           ttccggggccc tgccttcagg ctccggcccg ggcaggtcc ccaccagccg cggcttgctc            tcggggaccc tccaggcc tgggaatgag ccagccggg agttggaaa ttactgtctag            gggcggggat cccgtgtct gttcagttag catggattta ttgagtcca actgctgccc            aggccagta cggaggacgc tggggaatg gtgaagaaa cagaaaaag gtccttcccc            ttctggagat gacaaactgag tggggaatg agaccgtgaa caaaaaacat caagtccac            acacgctatg gaatggttat gaagggaagc gagaagggg cctaggggtg tctgggaggc            gtctccaaag agtgacact taagccatcc ccgaaagagg tgaagagat cactttgggg            agagctggag aacaggattc taggcggaag cgatagcata ggcaaggcc cttgggcagg            aaggcgtca gccttggtg gagtagaatt aagtcagagc caacaggttg gggagagaca            gagaagtgag caggggcacc caagtggga ttctatttca ggtgcattgg agattcttag            gagtgtctct tgggggtaat atttatttt ttaaaaaatg aggat            MTTSPILQLL LRLSLGLLL QRAETGSKGQ TAGELYQRWE RYRRECQETL AAAPPPSGLA P            CNGSFDWYVC WDYAAPNATA RASCPWYLPW HHVAAGFVL RQCGSDGQWG LWRDHTQCEN            PEKNEAFLDQ RLILRLQVM YTVGYSLSLA TLLALLILS LFRLLHCTRN YIHINLFTSF            MLRAAAILSR DRLLPRPGPY LGDQALALWN QALAACTAQ IVTQYCVGAN YTWLLVEGVY            LHSLVLVGG SEEGHFYRL LLGWAPALF VIPWVIVRYL YENTQCWERN EVKAIWIIIR            TPIMLTILIN FLIFIRILGI LLSKLRTQM RCRDYRLRLA RSTLTLPVLL GVHEVVFAPV            TEEQARGALR FAKLGFEIFL SSFQGLVSV PTERGLSSGT LPGPNEASR ELESYC            RQLPERAFRA LPSSGPGEV PTERGLSSGT LPGPNEASR ELESYC            ccagattcta aatatacaga aagacgtgt gggaaaaatg caggccaaaa gttcttagta A            aactgcagcc agggagactc agactagaat ggaggtagaa agaactgatg cagagtgggt            ttaattctaa gccttttgtt ggctaagttt tgttgtgtt aacttattga atttagagt            gtattgcact ggtcatgtga aagccagagc agcaccagtg tcaaaatagt gacagagagt            ttgtgaatcc atagttagta tatatgtact cagagtattt ttataaaga aggcaaaag            cccggcatag atcttatctt catcttact cggttgcaaa atcaatagt aagaaatagc            atctaaggga acttttaggt gggaaaaaaa atctagagat ggctctaaat gactgtttcc            ttctgaactt ggaggtggac catttcatgc actgcaacat ctccagtcac agtgcggatc            tccccgtgaa cgatgactgg tcccccccg tgcctctcta tgcctccct gcagttttatg            gggttatcat tctgataggc ctcatggga acatcacttt gatcaagatc ttctgtacag            tcaagtccat gcgaacgtt ccaaacctgt ccagcaggta cctggctgac agatggctat            tectccta atactgtgct ccagtgatg ctgataccct ttatacagct taccttctgt ggggtgtctg            ttggcaggat tggctgcaa ctgataccct tgcgagaca gatacaagc cattgtccg ccaatggata            tcttcacact cactggcgtc atgaagatct gctcaaaagc cgcctttatc tggatcatct            tccaggcctc ccattgcttg agggcgtgt ttctgacct ccattccctc catgaggaaa            ccagtgtgct ggcattcca gactgtgccc cataccaca ctctaagatg cttcacccca            gcaccaacca gactttcatt agctgtgccc tctacgtcat cccactgtcg atcatctctg            aaatccattc tatggcttcc ttctgggtct tctacgtcat cccactgtcg atcatctctg            ttactacta cttcattgct aaaaatctga tccagagtgc ttacaatctt cccgtggaaag            ggaatatata tgtcaagaag cagattgaat cccggaagcg acttgccaa acagtgtg            tgtttgtggg cctgttcgcc ttctgtgccc tccccaatca tgtcatctac ctgtacgct            cctaccacta ctctgaggtg gacacctcca tgcctccactt tgtcaccag atctgtgccc         </p>	Homo sapiens
129	NM_005314	Gastrin- Releasing Peptide Receptor	1813	<p>           gttcttagta A            cagagtgggt            atttagagt            tcaaaatagt            gacagagagt            ttataaaga            aggcaaaag            atcaatagt            aagaaatagc            gactgtttcc            agtgcggatc            gcatcctcta            tgcctccct            gcagttttatg            acatcacttt            gatcaagatc            ttctgtacag            tctggctttg            ggagacctgc            cctggctgac            agatggctat            taccttctgt            ggggtgtctg            cattgtccg            ccaatggata            cgcctttatc            tggatcatct            ccattccctc            catgaggaaa            cttcacccca            atcatctctg            cccactgtcg            atcatctctg            ttacaatctt            cccgtggaaag            acttgccaa            acagtgtg            tgtcatctac            ctgtacgct            tgtcaccag            atctgtgccc         </p>	Homo sapiens



130	1813	Gastrin- Releasing Peptide Receptor	NP_005305.1	<p>gctctctggc cttaccacac tctctcgtga accctttgc cctctacctg ctgagcaaga  gtttcaggaa acagttcaac actcagctgc tctgttgcca gcttgccctg atcatccggt  ctcacagcac tgaaggagat acaacctgca tgacctccct caagagtacc aacccctccg  tgccacctt tagcctcatc aatgaaaca tctgtcacga gcggtatgc tagattgacc  cttgattttg cccctgagg gacggttttg ctttatggct agacaggaac ccttgcatcc  attgttgtgt ctgtgccctc caaagacct tcagaatgct cctgagtgtg gtaggtggg  gtggggaggc ccaaatgatg gataccatt atattttgaa agaagc</p> <p>MAINDCFLIN LEVDHFMHCN ISSHSADLPV NDDWSHPGIL YVIPAVYGI ILIIGNIT P  LIKIFCTVKS MRNVNLFIS SLALGDLILL ITCAPVDASR YLADRWLFGR IGCKLIPFIQ  LTSVGVSFT LTALSADRYK AIVRPMDIQA SHALMKICLK AAFIWIISML LAIPEAVFSD  LHPHEESTN QTFISCAPYP HSNEHPKIH SMASFLVFYV IPLSIIISVY YFIKNILOS  AYNLPVEGNI HVKKQIESRK RLAKTVLVFV GLEAFPCWLPN HVIYLYRSYH YSEVDTSMLH  FVTSICARLL AFTNSCVNPF ALYLLSKSFR KQENTQLLCC QPGLIIRSHS TGRSTTCMTS  LKSTNPSVAT FSLINGNICH ERYV</p>	Homo sapiens
131	1814	Cholecystoki nin B Receptor	NM_000731	<p>atggagctgc tcaagctgaa ccggagcgtg cagggaacgg gaccggggcc gggggcttcc A  ctgtgcgccc cggggcgccc tctctcaac agcagcagtg tgggcaacct cagctgcgag  ccccctcgca ttcgcgagc cgggacaga gaattggagc tggccattag aatcactctt  tacgcagtga tottctgat ggcgttgga ggaatatgc tcatcatcgt ggtcctggga  ctgagccgcc gctgaggac tgtcaccaat gccttctctc tctcactggc agtcagcgac  ctcctgctgg ctgtggcttg catgcccctc accctcctgc ccaatctcat gggcacattc  atctttggca ccgtcatctg caaggcggtt tctacactca tgggggtgtc tgtgagtgtg  tccacgctaa gcctcgtggc catcgactg ggcggtgaca gcgccatctg ccgaccactg  caggcacgag tgtggcagac gcgtccccc gcggctcgcg tgattgtagc cactgggctg  ctgtccggac tactcatggt gccctacccc gtgtacactg tctgcaaac agtggggcct  cgtgtctgc agtgcgtgca tgcgtggccc agtgcgcggg tccgccaagc ctggtccgta  ctgctgcttc tgccttctgt cttcatcccc ggtgtggtta tggccgtggc ctacgggctt  atctctcgcg agctctactt agggcttcgc tttgacggcg acagtgcag cgacagccaa  agcagggtcc gaaaccaagg cgggctgcca ggggctgttc accagaacgg gcgttgccgg  cctgagactg gcgcggttgg cgaagacagc gatggctgct acgtgcaact tccacgttcc  cgccctgcc tggagctgac ggcgctgacg gctccagggc cgggatccgg ctcccggccc  accagggcca agctgctggc taagaagcgc gtgggtcgaa tgttgctggt gategttgtg  cttttttttc tgtgttggtt gccagtttat agtgccaaca cgtggcgccg ctttgatggc  ccgggtgcac accgagcact ctccgggtgct cctatctcct tcattcactt gctgagctac  gcctcgccct gtgtcaaccc cctgggtctac tgcctcatgc accgtcgctt tgcgagggc  tgccctggaaa ctgtcgctcg ctgctgccc cggcctccac cagctcgccc cagggtctt  cccgatgagg accctccccc tccctccatt gcttcgctgt ccaggcttag ctacaccac  atcagcacac tgggcccctgg ctgaggagta gaggggccgt gggggttag gcagggcaaa  tgacatgcac tgaccttccc agacatagaa aacacaaacc acaactgaca caggaaacca  acacccaaag catggactaa ccccaacgac agggaaaggt agcttacctg acacaaagg  aataagaatg gagcagtaca tgggaaagga ggcctgcctc tgatatggga ctgagcctgg  cccatagaaa catgacactg accttgagga gacacagcgt ccctagcagt gaactattc</p>	Homo sapiens

132	1814	Cholesteryl n B Receptor	NP_000722.1	<p> taccacagtggaactctgacagggctgacctgcctctcacacacatagataaaggacac  tgattgttttagagactatgagcctggcagaggatgcttggtatgctttagttt  acctcacagtgaaccttccaatcagcactgaataacacacagggcctaaacctat  ctgacacaaaggctgttctgactgaaaaggttcttctcctcttccagttaaggacgt  ggcctgcccctctcttcttcccaaaactgttcaagaataataaattgtttggcttct  cctgaaaaaataaaaaaaataaaaaaaaggaattcc  MELKLNRSVQGTGPGPGASLCRPGAPLLN SSVGNLSCEPPRIRGAGTR EELAIRITL P  YAVIFLMSVG GNMLIIVLGLSRRLRTVTN AFLLSLAVSD LLLAVACMPF TLLPNLMGTF  IFGTVICAV SYLMGVSVSSTLSLVAIAL ERYSAICRPL QARVWQTRSH AARVIVATWL  LSGLIMVPYP VYTVVQPVGRVLIQCVHRWP SARVRQTSV LLLLLFFIP GVMAVAYGL  ISRELYLGLR FDGSDSDSQ SRVRNQGLP GAVHQNGRCR PETGAVGEDS DGCYVQLPRS  RPALELTALT APGPGSGSRP TQAKLLAKKR VVRMLLVIVV LFFLCWLPVY SANTWRAFDG  PGAHRAISGA PISFIHLSY ASACVNPLVY CFMHRFRQA CLETARCCP RPPRARPRAL  PDEDPTPSI ASLSRLSYTT ISTLPGP  ggatctggcagcgcgcgaa gacgagcgggt caccggcgcc cgaccggagc ggcacagag A  gacggcgggg agccaagccg acccccgagc agcgcccgcc gggccctgag gctcaaggg  gcagcttcag gggaggacac cccactggcc aggagcccc aggtctgtgt gctctgccac  tcagctgccc tcggaggagc gtacacacac accaggactg cattgcccc gttgacagcc  cctgccagat gtggaggagca gctagctgccc cagaggcatg cccccctgcc agccacagc  accctgctg ctgttctgctg tctgctgccc ctgccagcca caggtcccc cgcctcaggt  gatggacttc ctgtttgaga agtggaaagt ctacggtgac caggtgcacc acaacctgag  cctgctgccc cctcccacgg agctggtgtg caacagaacc ttgcacaagt attcctgctg  gcgggacacc cccgccaata ccagggccaa catctcctgc cctgggtacc tgccttgcca  ccacaaagt caacaccgt tctgtgttcaa gagatgcggg ccgacggtc agtgggtgctg  tggaaccccg gggagcctt ggcgtgatgc ctcccagtc cagatggatg cggaggagat  tgaggtccag aggaggtgg ccaagatgta cagcagcttc caggtgatgt acacagtggtg  ctacagcctg tccctggggg cctgctctct cgccttgccc atcctggggg gctcagcaa  gctgactgc accgcaatg ccatccacgc gaatctgttt gctccttctg tctgaaagc  cagctccgtg ctggtcattg atgggctgct caggaccccgc tacagccaga aaattggcga  cgacctcagt gtcagcact ggtcagtgta tggagcgtg gctggctgcc gtgtggcgcg  ggtgttcagt caatatggca tctgtggcaa ctactgctg cctgctgtg agggcctgta  cctgcacaac ctgctgggccc tggccacct tggccacct cctcttctca gctctacct  gggcatcgcc tggggtgccc ccatgctgtt cgtcgtcccc tggcagtggt tcaagtgtct  gttcgagaac gtcagtgct ggaacagcaa tgacaacatg gcttctgtt ggtacctgctg  gttccccgtc ttcttgcca tctgatcaa cttcttctc ttcttccgca tcttctcagct  gctcgtggcc aagctgcggg caggcagat gcaccacaca gactacaagt tccggctggc  caagtccacg ctgacctca tccctctgct gggcgtccac gaagtgtct ttgcttctgt  gacggacgag cagccccagg gcacctgctg ctcgcgcaag ctcttctgt accttctct  cagctctctc cagggcctgc tgggtggtgt cctctactgc ttctcaaca aggaggtgca  gtcggagctg cggcgcgctt ggcacctg ggcctgggc aagtgtctat gggaggagc  gaacaccagc aaccacagg cctcatcttc gcccgccac ggcctctcca gcaaggagct </p>	Homo sapiens
133	1834	Glucagon Receptor	NM_000160	<p> gacgagcagc cccgccaata ccagggccaa catctcctgc cctgggtacc tgccttgcca  ccacaaagt caacaccgt tctgtgttcaa gagatgcggg ccgacggtc agtgggtgctg  tggaaccccg gggagcctt ggcgtgatgc ctcccagtc cagatggatg cggaggagat  tgaggtccag aggaggtgg ccaagatgta cagcagcttc caggtgatgt acacagtggtg  ctacagcctg tccctggggg cctgctctct cgccttgccc atcctggggg gctcagcaa  gctgactgc accgcaatg ccatccacgc gaatctgttt gctccttctg tctgaaagc  cagctccgtg ctggtcattg atgggctgct caggaccccgc tacagccaga aaattggcga  cgacctcagt gtcagcact ggtcagtgta tggagcgtg gctggctgcc gtgtggcgcg  ggtgttcagt caatatggca tctgtggcaa ctactgctg cctgctgtg agggcctgta  cctgcacaac ctgctgggccc tggccacct tggccacct cctcttctca gctctacct  gggcatcgcc tggggtgccc ccatgctgtt cgtcgtcccc tggcagtggt tcaagtgtct  gttcgagaac gtcagtgct ggaacagcaa tgacaacatg gcttctgtt ggtacctgctg  gttccccgtc ttcttgcca tctgatcaa cttcttctc ttcttccgca tcttctcagct  gctcgtggcc aagctgcggg caggcagat gcaccacaca gactacaagt tccggctggc  caagtccacg ctgacctca tccctctgct gggcgtccac gaagtgtct ttgcttctgt  gacggacgag cagccccagg gcacctgctg ctcgcgcaag ctcttctgt accttctct  cagctctctc cagggcctgc tgggtggtgt cctctactgc ttctcaaca aggaggtgca  gtcggagctg cggcgcgctt ggcacctg ggcctgggc aagtgtctat gggaggagc  gaacaccagc aaccacagg cctcatcttc gcccgccac ggcctctcca gcaaggagct </p>	Homo sapiens

134	1834	Glucagon Receptor	NP_000151.1	<p>gagtttggg aggggtggtg gcagccagga ttcatctgag gagacccct tggctggtg</p> <p>cctccctaga ttggtgaga gccccttctg aacctgctg ggacccagc tagggctgga</p> <p>ctctggacc cagagcgct gctggacaac ccagaactgg acgccagct gaggtgggg</p> <p>gcgggggagc caacagcagc cccacacctac ccccccacc cagtggtgct gtctgcgaga</p> <p>ttgggacctc tctccctgca cctgccttgt cctggtgca gaggtgagca gagagtcga</p> <p>ggcggggagt ggggctgctg ccgtgaactg cgtgccagt tccccagta tgtcggcacg</p> <p>tcccatgtgc atggaaatgt cctccaaaca taaagagctc aagtgtcac cgtg</p> <p>MPPCQQRPL LLLLLLLACQ PQVPSAQVMD FLFEKWKLYG DQCHNLSLL PPTELVCNR P</p> <p>TFDKYSCWPD TPANTTANIS CPWYLPWHHK VQHRFVKRC GPDGQWVRGP RGQPWRDASQ</p> <p>CQMDGEEIEV QKEVAKMYSS FQVMYTVGYS LSLGALLAL AILGLSKLH CTRNAIHANL</p> <p>FASFVLKASS VLVIDGLLRT RYSQKIGDDL SVSTWLSGVA VAGCRVAVF MQYGIVANYC</p> <p>WLLVEGLYLH NLLGLATLPE RSFFSLYLGI GWGAPMLFVV PWAVVKCLFE NVQCWTSNDN</p> <p>MGFWILLRFP VELAILINFF IFVRIVQLLV AKLRARQMHV TDYKFRLLAKS TLTLLPLLV</p> <p>HEVVFVAFVTD EHAQGLTISA KLFFDLFLSS FQGLLVAVLY CFLNKEVQSE LRRRWHRWRL</p> <p>GKVLWEERN T SNHRASSSPG HGPPSKELQF GRGGGSDSS AETPLAGGLP RLAEPSF</p>	Homo sapiens
135	1925	Gonadotropin -Releasing Hormone Receptor	NM_000406	<p>ttggttgctg gtccacttac aaacactttt catatttgta tgtctttcca atggttatcc A</p> <p>tgttttgttc atttcaggca tatggccttg atcagattaa ctgacatgat gtatatgcaa</p> <p>agccttttga gttcttcaga aaaataaatt atcttattca agactgattg cttataagga</p> <p>acttattata gctaatatag taggcacaaat ttttttttga attctctag atgagtcaga</p> <p>acttagtttt gatgtaggta aaaattttat ggtcacaaat ctcaggtgtg agaaaatctc</p> <p>tttcttgat actctatata aatagaggat ataaatattt caagtctgga agtagtgaga</p> <p>gaagctggta attctggaca tatagtga gtcacaaagg agctcaggta caggactggt</p> <p>ctaagctgct caagattcag gagacagcca gtacacagag agctgagga aataatacag</p> <p>atatacttaa aacacttacc taaccttctg tggtaacaaag ctctttaaag gggctggatg</p> <p>atgtgtgtgt cactttttat caccagcaaa ggctaagata atgtatatag taaatattta</p> <p>gtaaccattt attaaataaa taaatattta agacagaata aacaagtata ataaatgaac</p> <p>caataagaat gcaccatcta agtcaaaata gccactttta tccttaacat tgtacctgct</p> <p>ttggctgctg cagaagcaaa ctgtgtggca ttgacaaaat caagctgggtg atttaataaa</p> <p>ttccaatgta agtcttacc gtattgatga ataactatcc agcactacc atgaagttta</p> <p>agaagcaac acagaaaaag ttctaagtgt gtcccaattt gaaatgatca gataacctat</p> <p>aaaagaacat attcatatta tactaacata aacacatata aatgcactta cagcagttac</p> <p>acagtattct cttcaataac tagtttctt atgcattaat gtgtaataac agcaactaca</p> <p>atatttagat aattataaa accaaggcaa taatttaaaa actgattaac cgttttactc</p> <p>taacttaagc atggattgga tcagtaagat tgattaataa attgaaatgc agtcagttgg</p> <p>attgattcta atttaaagt ttaatttgtt gtagaataat tttaaagtga tataattgtc</p> <p>cagtgttga gtgtcaaca gtgtgtttga aaaggaaaaa aaagaatgtt ttgagaatgt</p> <p>gttaattcct taagacaatg gattttaatt ggatctgttg ttttcatttt tcttcattat</p> <p>cattatacat ctgtatgttg gacagaacac taacactaaa tagtttttag aaagtgttt</p> <p>ttgaagtat ttaaatcata atatcatgac tgacttttga attcaaaatt aggcgtgac</p> <p>tatccttctt cacttaggaa gagtgtgtg aaagccagac catctgtga ggtgctacag</p> <p>ttacatgtgg cccatcagaat gcgtttggcc tgcctgtgtt tagcactctg ttggattacc</p>	Homo sapiens

136	1925	Gonadotropin NP_000397.1 -Releasing Hormone Receptor	aatacacaaa acaagttaac ctttgatctt tcacattaag tatctcaggg aaaaaattg acatacgtct aaacctgtga cgtttccatc taagaaggc agaaataaaa catggacttt agattcgggtt acaataaaat atcagatgca ccagagacac aaggcttgaa gctctgtcct gggaaaatat ggcaaacagt gcctctcctg aacagaatca aaatcactgt tcagccatca acaacagcat cccactgatg cagggaacc tcccactgt gacctgtctt gaaaagatcc gagtacggtt tactttcttc ctttttctgc tctctcgac ctttaattgct tctttcttgg tgaaacttca gaagtggaca cagaagaaag agaaaggga aagctctca agaagaagc tgctcttaaa acatctgacc ttagccaacc tggtagagac tctgattgtc atgccactgg atgggatgtg gaacattaca gtccaatggt atgctggaga gtactctgc aagttctca gttatctaaa gcttttcttc atgtatgcc cagccttcat gatgggtggg atcagcctgg accgtccctt ggctatcacg aggcccttag ctttgaaaaa caacagcaaa gtcggacagt ccatgggttg cctggcctgg atcctcagta gtgtctttgc aggaccacag ttatacatct tcaggatgat tcatctagca gacagctctg gacagacaaa agttttctct caatgtgtaa cacactgcag tttttcacia tggtaggcac aagcatttta taacttttc acctcagct gcctcttcat catccctctt tcatctatgc tgactgtcaa tgcaaaaaatc atcttcaccc tgacacgggt ccttcacag gacccccacg aactacaact gaatcagctc aagaacaata taccagagc acggctgaag actctaaaaa tgacgggtgc atttgccact tcatttactg tctgctggac tccctactat gtcttaggaa tttggtattg gtttgatcct gaatatgtaa acaggtgtgc agaccacgta aatcacttct tctttctctt tgccctttta aacctatgct ttgatccact tatctatgga tattttcttc tgtga	VFFFLELLSA TFNASFLKL P LTLSGKIRVT TNITVQWYAG ELLCKVLSYL GLAWILSSVF AGPQLYIFRM IIPLFIMLIC NAKIIFTLTR TPYYVLGIWY WFDPEMLNRL	Homo sapiens
137	1945	Opsin, green-sensitive	atggcccagc agtggagcct ccaaaggctc gcaggccgccc atccgcagga cagctatgag A gacagcacc agtcagcat cttcacctac accaacagca actccaccag aggcccttc gaaggccga attaccacat cgctccaga tgggtgtacc acctaccag tbtctggatg atctttgtgg tcattgcac cgttttcaca aatgggcttg tctggcgcc caccatgaag ttcaagaagc tgcgccacc gctgaactgg atcctgggtga acctggcggt cgctgacctg gcagagaccg tcatcgccag cactatcagc gttgtgaacc aggtctatgg ctaactcgtg ctgggccacc ctatgtgtgt cctggaggcc tacaccgtct ccctgtgtgg gatcacaggt ctctggtctc tggccatcat ttcctgggag agatggatgg tggctctgca gccctttggc aatgtgagat ttgatgcaa gctggccatc gtgggcatgg ctctctctg gatctgggct gctgtgtgga cagccccgcc catcttttgt tggagcaggt actggcccca cggcctgaag acttcacg gcccagact gttcagcggc agctcgatcc cgggggtgca gtcttacatg attgtcctca tggtaacctg ctgcatacc ccaactcagca tcatcgtgct ctgtacctc caagtgtggc tggccatccg agcgggtggca aagcagcaga aagagtctga atccaccag aaggcagaga aggaagtgc gcgcattggg gtgggtgatgg tccctggcatt ctgctctgc tggggaccat acgcttctt cgcattgctt gctgctgcca acctggcta cccctccac	LIYGFSL FAFLNPCFDP LIYGFSL	Homo sapiens

138	1945	Opsin, green- sensitive	NP_000504.1	MAOQWSLQRL AGRHPQDSYE DSTQSSIFTY TNSNSTRGPF EGPNYHIAPR WYVHLTSVWM P IFVVIASVFT NGLVLAATMK FKLRHPLNW ILVNLAVADL AETVIASTIS VNQVYGYFV LGHPMCVLEG YTVSLCGITG LWSLAIISWE RWMVVKPFG NVRFDAKLAI VGIAFSWIWA AVWTAPPIFG WSRYPWPHGLK TSCGPDVFSG SSYPGVQSYM IVLMTCCIT PLSIIVLCYL QVWLAIKRAVA KQKSESESTQ KAEKEVTRMV VMVLAFCFC WGPYAFFACE AAANPGYPFH PLMAALPAFF AKSATIYNPV IYVFMNRQFR NCILQLFGKK VDDGSELSSA SKTEVSSVSS VSPA	Homo sapiens
139	1951	Growth Hormone Secretagogue Receptor	NM_004122	atgtggaacg cgagcccg cgagagccg gggttcaacc tcacactggc cgacctggac A tgggatgctt cccccgcaa cgactcgctg ggcgacgagc tgcctgagct cttccccgcg cggctgctgg cgggctgcac agccactgc gtggcactct tctgtgtggg tatcgctggc aacctgctca ccatgctggt ggtgtcgccg ttccgcgagc tgcgcaccac caccaacctc tacctgtcca gcatggcctt ctccgactct ctcgacttcc tctgcatgcc cctggacctc gttcgctctt ggagtagcg gccctggaac ttccgagacc tcctctgcaa actcttccaa ttcgtcagtg agagctgcac ctacgccacg gtgctacca tcacagcgt gagcgtcgag cgtaacttcg ccatctgctt cccactccgg gccaaagtgg tggtaaccaa ggggctgggtg aagctgggtca tcttcgtcat ctgggcccgt gccttctgca gcgccgggcc catcttctgtg ctagtcgggg tggagcacga gaacggcacc gaccttggg acaccaacga gtgccgcccc accgagtttg cggctgcgtc tggactgctc acggtcatgg tgtgggtgtc cagcatcttc ttcttcttc ctgtcttctg tctcaccgtc ctctacagtc tcctcggcag gaagctgtgg cggaggaggg cggcgagatg tctcgtgggt gcctcgtcca gggaccagaa ccacaagcaa accgtgaaa tgctgggtgg gtctcagcg gcgctcaggc ttctctctgc gggctcctatc ctctccctgt gccttctccc ttctctctga	Homo sapiens
140	1951	Growth Hormone Secretagogue Receptor	NP_004113.1	MNATPSEEP GENLTADLD WDASPGNDSL GDELLQLFPA PLLAGVTATC VALFVVGIAG P NLFTMLVVSF FRELRTTNL YLSSMAFSDL LIFLCMPLDL VRLWQYRPWN FGDLCKLFQ FVSECTYAT VLTITALSVE RYFAICFPLR AKVVTGKRV KLVIWVAV AFCSAGPIFV LVGVEHNGT DPWDNECRP TEFAVRSGLL TVMVVSSIF FFLPVFCLTV LYSILGRKLW RRRGDAVVG ASLRDQNHQ TVKMLGGSQR ALRLSLAGPI LSLCLLPSL	Homo sapiens
141	1954	Growth Hormone- Releasing Hormone Receptor	NM_000823	agcagccaag gcttactag gctggtggag ggagccactg ctgggctcac catgaccgc A cggatgtggg gggccacgt cttctcgctg ttgagccctg taccgacctg attgggccac atgcaccag aatgtgact caccaccag ctgagagagg atgagagtc ctgtctacaa gcagcagagg agatgccaa caccacctg ggtgccccg cgacctgga tgggctgctg tgctggccaa cggcaggtc tggcgagtgg gtcacctcc cctgccgga tttctctct cacttcagct cagagctcag ggcgtgaaa cgggattgta ctatcactg ctggtctgag cccttccac cttaccctgt ggctgcccct gtgcctctgg agctgctggc tgaggaggaa tcttactct ccacagtga gattatctac accgtgggcc atagcatctc tatttagcc ctcttcgtgg ccatcaccat cctggttgc tccaggaggc tccactgcc cgggaactac gtccacacc agctgttcac cacttttata ctaaggcggg gacgtgtgtt cctgaaggat	Homo sapiens

142	1954	Growth Hormone- Releasing Hormone Receptor	NP_000814.1	<p>gctgcccctt tccacagcga cgacactgac cactgcagct tctccactgt tctatgcaag gtctctgtgg ccgctctcca ttctgccacc atgaccaact tctagctggct gttggcagaa gcgtctacc tgaactgctt cctggcctcc acctcccca gctcaaggag agccttctgg tggctggctc tcgctggctg gggctgctcc gtgctcttca ctggcacgtg ggtgagctgc aaactggcct tcgaggacat cgcgtgctgg gacctgagc acacctcccc ctactgggtg atcatcaaa ggcctattgt cctctcggtc ggggtgaact ttgggctttt tctcaatatt atccgcacc tggtaggaa actggagcca gctcaggcca gctccatac ccagtctcag tattggctc tctccaaatc gacactttt ctgataccac tcttggaat tcaatacatc atcttcaact tctggcaga caatgctggc ctgggcacc gctccccct ggagctggga ctgggttctt tccaggctt catgtgtgct atctctact gcttctcaa ccaagaggtg aggactgaga tctcagcga gtggcatggc catgacctg agcttctgcc agcctggagg accctgcta agtgaccac gccttccccg tggcgccaa aggtgctgac atctatgtgc taggtgctt catcagcca ctggagtcca cacttgaatt tgggcagcta ccacgggtct gccatgctt ggaggagcaa gggggccaca tccccacc agctgtacc cagcccgggg caggtgcagc ccttctccc tgtctctgca tctgactctc tttgaggtc cctgtatgtc tacctctgac ttctgtggtc cctctgtgct tgcctctcacc cactctctt actggggcct ggggctctag cccaaggctc agaggagcca ataaacctg aaatgaaaa aaaaaa MDRRMGAHV FCVLSPLPTV LGMHPECDF ITQLREDESA CLOAAEMPV TILGCPATWD P GLLCWPTAGS GEVWTLPCPD FFSHFSSSG AVKRDCITG WSEPPFPV ACVPLELLA EESYFSTVK IYTVGHSIS IVALFVAITI LVALRRLHCP RNYVTHQLFT TFIKAGRVF LKDAALFHS DFDHCSFSTV LCKVSVASH FATMNFSL LAEAVLNCL LASTSPSSRR AFWWLVLAGW GLPVLFTGTW VSKLAFEDI ACWDLDDTSP YWIIKGPV LSVGVNFGFLF LNIIRILVRK LEPAQGLSHT QSQYWRLSKS TLFILPLFGI HYIIFNLPD NAGLGIRLPL ELGLGSFQGF IVAILYCFLN QEVREISRK WHGHDPPELLP AWRTRAKWTT PPSRAAKVLT SMC</p>	Homo sapiens
143	2120	Histamine H1 Receptor	NM_000861	<p>cagggagaca tacaggattt aagaagccca tcatggagaa gaccttcaat tacagagata A aaaagtthtt ctgttggaac aagttaacac tagatggcag ataacagact gaggagtga ctgcttctga ctcgattaaa agggagtga gccataactg gcggctgctc ttctgccaat gagctcccc aattcctct cctctctaga agacaagatg tgtgaggga acaagaccac tatggccagc cccagctga tgcctctggt ggtggtcctg agcactatct gcttggctac agttaggctc aacctgctg tctgtatgc cgtacggagt gagcggaagc tccacactgt gggaaacctg tacatgcca gctctcgtt ggcggacttg atcgtgggtg ccgtcgtcat gcctatgaac atctctacc tgcctatgct caagtgtca ctgggcccgc ctctctgctc cttttgctt tccatggact atgtggccag cacagcgtcc atttctagt tcttctcct gtgcattgat cgtaccgt ctgtccagca gcccctcagg taccttaagt atcgtaccac gacctagcc tcggccacca ttctgggggc ctggttctc ctcttctgt gggttattcc cattctaggc tggaaatcact tcatgcaga gacctcgtg gcggagagg acaagtgtga gacagacttc tatgatgcca cctgggtcaa ggtcatgact gccatcatca acttctacct gcccacttg ctcatgctc ggttctatgc caagatctac aaggccgtac gacaacactg ccagcaccgg gagtcatca ataggctcct ccttctctc tcagaaaita agctgaggcc agagaacccc aagggggatg ccaagaaacc agggaaggag tctccctggg aggttctgaa</p>	Homo sapiens

aaggaagcca aaagatgctg gtggtggtc tgcttgaag tcaccatccc aaacccccaa  
ggagatgaaa tcccagttg tcttcagcca agagagtag agagaagtag acaaacctcta  
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tgtagccgtc aaccggagc atggccagct caagacagat gagcagggcc tgaacacaca  
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ggcagccttc atcctctgct ggtaccctta ttcatcttc ttcatggtca ttgctttctg  
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cacactgaac cccctcatct accccttggt caatgagaac ttcaagaaga cattcaagag  
aatctctgcat attcgtcctc aaggagggtc ctgaggggat gcaacaaaat gatccttatg  
atgtccaaca aggaataga ggacgaaggc ctgtgtgttg ccaggcaggc acctgggctt  
tctgggaatcc aaaccacagt cttaggggct tggtagtttg gaaagtctt aggcaccata  
gaagaacagc agatggcgtt gatacagca gagattgaac tttagaggag aagcagaatc  
tttgcagaa agtcagacct gtttcttgta actgggttca aaagaaaaa aataataaaa  
ataaaagaga gagaaatca gacctgggtg gaactctct gctcctcagg aactatggga  
gcctcagact catgtaat caagcttcc gagtcaagt attgacaact gaagagacac  
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ctttaacccc aaatttctt tggctattaa aaaagtgtg gcaaaaggca tcccaaaaag  
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cacaaaaatt atctgggcat ggtggggcat gcctgtagtc ccactactt gggaggccga  
ggcacgagaa tgccttgaac ccgggagggt gaggttgcg tgagccaaga tcacgccact  
gcactccagc ctgggcaaca gagcaagact ctgtctcaa aaaaaata caatattta  
acaatgtgc ctcttaagt tgcacagata cagatcacg gtattccaa gagtgtggc  
agctcaaat gatattttg agtagacgaa cagttgacat ggagttccc tgcacctacg  
gaagggacg ctttgaagga accaagtga tttttatctg tgagttctgt tgtgtttgc  
aaaaatcat tgtaacttt catagccata cctggtaagc aaaaactagt aaagacatag  
gaacatgtag ttttacttgg tgtttatgtt gcaatcgtgt tgtgatttat attttaagc  
ttgggtctaa accacaatat gtatagcaca tggagtgct gtacaagctg atgtttgta  
ttttgtgttc ctcttgcatt gatctgtcaa agtgagatat ttttacctgc ctaaaaatg

Homo  
sapiens

144 2120 Histamine H1 NP\_000852.1 Receptor  
 atgtttaaaa gcataactcta tgtgatttat ttatttctac ctttctgagt cttctggact  
 aagaagatgt tttgaaatgt accatcaaat gtttaacagag tttgatatgg gctttctctt  
 tggtttctca tcacatttgt aatgtcttt tcaaaagat ttaacttttg taaaaagctt  
 cattctcact ctgctttgca tcccccaaac ttcttcttca aaacgggggg agtttaggag  
 actttaatcc cggtttcaga agtgcagct ggtctgttcc caggtcagaa accattgttc  
 agaagacctc cctgtgagag agtgcctct cagggtccct caggaccaa gaacactcga  
 aaagagcact tcacacagac aagtggctaa gtgtccatta tttaacctga acaatcaag  
 caactagtgg agagaactga ttgtgagctc  
 VGNLYIVSL VADLIVGAV MEMNIIYLIM SKWSLGRPLC LFWLSMDYVA STASIFSFI  
 LCIDRYRSVQ QPLRYLKYRT KTRASATILG AWFLSFLWVI PILGNHFMQ QTSVRREDKC  
 ETDFYDVTWF KMTAIINFY LPTLLMLWFI AKIYKAVRQH CQHRELINRS LPSFSEIKLR  
 PENPKGDAKK PGKESPWEVL KRKPKDAGGG SVLKSPSQTP KEMKSPVWFS QEDDREVDKL  
 YCFPLDIVHM QAAAEGSSRD YVAVNRSHGQ LKTDEQGLNT HGASEISEDQ MLGDSQSFSR  
 TDSDTTETA PGKGKLRSGS NTGLDYIKFT WKRLRSHSRQ YVSGLHMNRE RKAAKQLGFI  
 MAAFILCWIP YFIFFMVIAF CNKCCNEHLH METIWLGYIN STLNPLIYPL CNENFKKTFK  
 RILHIRS

Homo  
sapiens

145 2121 Histamine H2 NM\_022304 Receptor  
 ctctggccct ccactgactc cagagagggga gatccccagt acttgactcc atcacgcaga  
 tgggagcagg caccagctat ggagagggat acagctgcgt ctccacatga cccatctctg  
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 gacctacccc agccccggga ggaagctagc tcttcagggg accgtctgag gactggagt  
 tgatccatga acctggcttc gaggccttgc ttttctctct tcttattca tattcattcc  
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 gaagccttcc ccacccctg gccaaaaaa aaaaactggac acattttgga  
 tctgttggga gcttggagtc cagtgttgg ctagttgtc acattggag cagagaagaa  
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 acagcctctt ccttttgctt gactctacc gcatgcaaga tcaccatcac cgtggctcct  
 gcgtcctca tctcatcac cgttgcctgg aatgtggtcg tctgtctggc cgtgggcttg  
 aaccgcggc tccgcaacct gaccaattgt tcatcgtgt ccttggctat cactgacctg  
 ctccctggcc tctgtgtgct gcccttctt gccatctacc agctgtcctg caagtggagc  
 tttggcaagg tcttctgcaa tatctacac agcctggatg tgatgctctg cacagcctcc  
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 aagggcaatc ataccacctc taagtgcata atgaagtga cgggctgggtg  
 gatgggctgg tcaccttcta cctccgcta ctgatctgt gcatcaccta ctaccgcac  
 ttcaaggctg cccgggatca ggccaaagg atcaatcaca ttagctcctg gaaggcagcc  
 accatcagg agcaaaaag cacagtga caatggggc tcatggggc ctcatcatc  
 tgcctgtttc cctacttacc cgcgtttgtg taccgtgggc tgagagggga tgatgccatc  
 aatgaggtgt tagaagccat cgttctgttg ctgggctatg ccaactcag cctgaacccc  
 atcctgtatg ctgcgctgaa cagagacttc cgcacccgggtt accaacagct cttctgtgc



146	2121	Histamine H2 Receptor	NP_071640.1	aggctggcca accgaaact ccacaaact tcttgaggt ccacgcctc tcagctgtcc aggacccaaa gccgagaacc caggcaacac gaagagaact ccctgaagct ccaggtgtgg agtgggacag aagtcacggc ccccagggg ggcacagaca ggaatagacc ctgagccattg gtgcacagga tgggggcaat gggaggggat gctactgatg ggaatgatta agggagctgc tgtttaggtg gtgctgggtt atgttctagg aactcttcat gagcactttg taaacaccct cttgcttaat cctcccaacg gcccccaag gtagaactta gctccctttt aaaaggagca cattaaaatt ctacagagac ttggcaaggg ccgcacagct ggggcat	Homo sapiens
147	2783	Opioid Receptor, kappa 1 (OPRK1)	NM_000912	MAPNGTASSF CLDSTACKIT ITVVLAVLIL ITVAGNVVC LAVGLNRRRL NLNCFIVSL P AITDLLLGLL VLPFSAIYQL SCWWSFGKVF CNIYTSLDVM LCTASILNLF MISLDRYCAV MDPLRYPVLV TPVRVAISLV LIWVISITLS FLSIHLGWS RNETSNGNHT TSKCKVQWNE VYGLVDGLVT FYLPLLIMCI TYRIFKVAR DQAKRINHIS SWKAATIREH KATVTLAAM GAFFICWFPY FTAIFYRLR GDDAINEVLE AIVLWLYAN SALNPILYAA LNRDFTGYQ QLECCRANR NSHKTSLRSN ASQLSRTQSR EPRQEEKPL KLQVWSGTEV TAPQGATDR tgacgacactc accatggaat ccccgattca gatcttcgcg ggggagcctg gccctacctg A cgccccgagc gctgcctgc cccccacag cagcgccctg tttccccgct gggccgagcc cgacagcaac gcagcgccg gctcgaggga cgcgcagctg gagcccgcg acatctcccc ggccatcccc gtcacatca cggcgggtca ctccgtagt ttcgtcgtg gcttggtggg caactcgtg gtcattgtcg tgatcatccg atacacaaag atgaagacag caaccaacat ttacataattt aacctggctt tggcagatgc tttagttact acaaccatgc cctttcagag tacggtctac ttgatgaatt cctggcctt tggggatgtg ctgtgcaaga tagtaatttc cattgattac tacaacatgt tcaccagcat cttcaccttg accatgatga gcgtggaccg ctacattgcc gtgtgccacc ccgtgaaggc ttgggacttc cgcacacct tgaaggcaaa gatcatcaat atctgcatct ggctgctgc tgcatctgtt ggcattcttg caatagtcct tggaggcaacc aaagtcaggg aagacgtcga tgcattctg tgcctcttg agttcccaga tgatgactac tctgtgtggg acctctcat gaagatctgc gtcttcatct ttgcttctgt gatccctgct ctcacatca tctgtctgcta cactctgatg atcctgcgtc tcaagagcgt ccggtcctt tctggctccc gagagaaaga tcgcaacctg cgtaggatca ccagactggt cctgggtgtg gtggcggtt tctgctgtc ctggactccc attcacatat tcactctggt ggaggtctg gggagcacct cccacagcac agtgccttc tccagctatt acctctgcat cgcttaggc tataccaaca gtacgctgaa tccattctc tacgccttc ttgatgaaaa cttcaagcgg tgtttccggg acctctgct tccactgaag atgaggtgg agcggcagag cactagcaga gtccgaaata cagttcagga tctgcttac ctgaggga tcatgggat gaataaacca gtatgactag tctgtggagat gtcttcgtac ag MESPIQIFRG EPGPTCAPSA CLFPNSSAWF PGWABPDSNG SAGSEDAQLE PAHISPAIPV P IITAVYVVVF VGLVGNLSV MFVIIRYTKM KTATNIYIFN LALADALVTT TMPFQSTVYL MNSWPFQDVL CKIVISIDYY NMFTSIFTLT MMSVDRYIAV CHPKALDFR TPLKAKINI CIWLLSSSVG ISAILVGGTK VREDVDVIEC SLQFPDDDS WWDLFMKICV FIFAFVIVL IIIVCYTMI LRIKSVRLLS GSREKDRNLR RITRLVIVV AVFVVCWTPI HIFILVEALG STSHSTAALS SYFFICIALGY TNSSLNPILY AFLDENFKRC FRDFCFPLKM RMERQSTSRV RNTVQDPAYL RDIDGMNKPV	Homo sapiens
148	2783	Opioid Receptor, kappa 1 (OPRK1)	NP_000903.1	aggctggcca accgaaact ccacaaact tcttgaggt ccacgcctc tcagctgtcc aggacccaaa gccgagaacc caggcaacac gaagagaact ccctgaagct ccaggtgtgg agtgggacag aagtcacggc ccccagggg ggcacagaca ggaatagacc ctgagccattg gtgcacagga tgggggcaat gggaggggat gctactgatg ggaatgatta agggagctgc tgtttaggtg gtgctgggtt atgttctagg aactcttcat gagcactttg taaacaccct cttgcttaat cctcccaacg gcccccaag gtagaactta gctccctttt aaaaggagca cattaaaatt ctacagagac ttggcaaggg ccgcacagct ggggcat	Homo sapiens
149	2964	Luteinizing	NM_000233	ggcggcccat gaagcagcgg ttctcggcg tgcagctgct gaagctgctg ctgctgctgc A	Homo

Hormone/Chor  
iogonadotrop  
in Receptor

sapiens

agccgcccgt gccacgagcg ctgcccgcgagg cgctctgccc tgagccctgc aactgcgtgc  
ccgacggcgc cctgcgtgc ccgcccgcga ccgcccgtct cactgcacta tcaattgcct  
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tgaagtgtgc cacattgcac tgtcaaggta cagctctcct agcaagact cgctacacag  
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attacctgta ccagtaattt taacataaag ggttggattt aggaatttat ttatttttag  
gtacattagg caagagacct ctacctagta gaaagtgtag tctatgacca ctgccacacg  
taaaaactat ttgtcattgt tacatggcat aaatatgaag ttgagagtgt ttgaaaaatt  
ttatagaaat ttgacacag taattttgtt tgatgaatct tttaaaaaac agaggaggt  
tttgcataat ctttttttca ttttctgtaatt ttgtattgca tctataaaa atattagttc  
ataacagatc agaaatttaa aataaggggc tttttctctca ggtagtttga aaaacacact

150	2964	Luteinizing Hormone/Chor iogonadotrop in Receptor	NP_000224.1	ctagagatgc actgttcaat tcggtacgca ctagccacat gtggctaaat taaaaataa taaaatgaga aatgtagttt ctacagttgca ctacgtttca agttctcaat ggctacgtca agttctcaat ggctacgtgt gactagtgct taccatgtgt gacacacag acacagaata ttttcatcac cacagaaagt tctatctgtt ctattataga gacttttatg tatgccctat ctggattcta cttatttata atttaaggta aacatctgaa agcacatttc agcctatttg cttagtgaaa cattaagctg tagactgtaa actcctcgtg agtaggaacc ctgtctcagt gcattttgtt ttcctgcttc ctactctcaag atcttggaac tggtagacata caaatgtgct gagttagaat tactctgaag ttatgaacaa tataatgaaa acaatttttc cggcc VKIPFSALQL LKLLLLQPP LPRLREALC PEPNCVDPG ALRCPGPTAG LTRLSLAYLP P VKVIPSQAFR GLNEVIKIEI SQIDSLEIE ANAFDNLNL SEILIQNTKN LRYIEPGAFI NLPGLKYL SI CNTGIRKFPD VTQVPSSEN FILEICDNLH ITTIPGNAFQ GMNNESTLTK LYGNNGFEVQ SHAFNGTTLT SLELKENVHL EKMNGAFRG ATGPKTLDIS STKLQALPSY GLESIQRLIA TSSYSLKKLP SRETFVNLLE ATLTPSHCC AFRNLPTKEQ NFSHSISENF SKQCESTVRK VSNKTLYSSM LAESELGWD YEYGFCLPKT PRCAPEPDAF NPCEIDIMGYD FLRVLIWLIN ILAIMGNMTV LFVLLTSRYK LTVPRFILMCN LSFADFCMGL YLLLIASVDS QTKGQYINHA IDWQTGSGCS TAGFTVFAS ELSVYTLTVI TLERWHTITY AIHLDQKLRL PHAILIMLGG WLFSSLIAML PLVGVSNYMK VSICFPMDVE TTLSQVYILT ILILNVVAFF ITACAYIKIY FAVRNPELMA TNKDKIAKK MAILIFTDT CMAPISFFAI SAAFKVPLIT VTNSKVLILV FYPINSCANP FLVAIFTKTF QRDFFLLLSK FGCKRRRAEL YRRKDFSAYT SNCKNGFTGS NKPSQSTLKL STLHCQGTAL LDKTRYTEC	Homo sapiens
151	2976	Lysophosphat idic Acid Receptor Edg2	NM_001401	acggcgcgct gggctcacac tgcctccgct cggacgggct ttgtgtgttg gggcgcgctg A gagagtgcca gtgagagtgt ggggtgcgct ggtggcgctg ggcgcgggtg ggtggcgctg cggtcttgctg agcggcgctg caggagcgca ggcctccctg gcctcccgca cccagcgctg gaccgagccc ctggaggga gtgcccagc cgcggcgctg cgcggcgctt cctgtcccg gccagggtaca cagctctctc tagcatgact tgcatactgat cagcaaaaca gaaaatttgt ctcccgtagt tctggggcgt gttcacacc tacaaccaca gagctgtcat ggcgtccatc tctacttcca tccctgtaat ttcacagccc cagttcacag ccatgaatga accacagtc ttctacaacg agtccattgc ctctctttat aaccgaagt gaaagcatct tgccacagaa tggaacacag tcagcaagct ggtgatgga ctgggaatca ctgtttgtat ctctcatg ttggccaacc tattggtcat ggtggcaatc tatgtcaacc gccgcttcca tttctctatt tattacctaa tggctaattc ggtgctgca gacttctttg ctgggttgcc ctacttctat ctcatgttca acacaggacc caatactcgg agactgactg ttagcacatg gctcctgctg caggcgctca ttgacaccag cctgacggca tctgtggcca acttactggc tattgcaatc gagaggcaca ttacgggtttt cgcgatgcag ctccacacac ggatgagcaa cggcggtgta gtgggtggtca ttgtggtcat ctggactatg gccatcgtaa tgggtgctat accagtggtg ggctggaaact gtatctgtga tattgaaat tgttccaaca tggcaccct ctacagtgac tcttacttag tcttctgggc cattttcaac ttgggtgacct ttgtggtaac ggtggttctc tatgctcaca tctttggcta tgttcgccag aggactatga gaatgctcg gcatagttct ggaccccgcc ggaatcgga taccatgatg agtcttctga agactgtggt cattgtgctt ggggccttta tcatctgctg gactcctgga ttggttttgt tacttctaga cgtgtgctgt ccacagtgcg acgtgctggc ctatgagaaa ttcttctctt tccttgctga attcaactct	Homo sapiens

152	2976	Lysophosphat NP_001392.1 idic Acid Receptor Edg2	gcatgaacc ccatcattta ctctaccgc gacaaagaaa tgagcgccac ctttaggcag atcctctgct gccagcgagcag tgagaacccc accggcccca cagaaggctc agaccgctcg gcttccctccc tcaaccacac catcttggtt ggagttcaac gcaatgacca ctctgtggtt tagaacggaa actgagatga ggtggggtgt gctctctctt ggagataaaa cagccctccc ctacccaatt gccagggcaa ggtggggtgt gacagggag aaggtcaac tcatgtactt aaacactaac caatgacagt attgttccct ggacccacca agacttgata tatattgaaa attagcttat gtgacaaccc tcatcttgat cccatccct tctgaaagta ggaagttgga gctcttgcaa tggaattcaa gaacagactc tggagtgtcc atttagacta cactaactag acttttaaaa gattttgtgt ggtttggtgc agtcagaat aaattctggc tagttgaatc cacaacttca ttatatata ggttccctt ttttattttt aaaggatacg ttctacttaa taaacacgtt tatgacctatc agcatgtttg tgatggatga gactatggac tgccttttaa ctaccataat tccatttttt cctttacata ggaataactgt aagttggaat tatcttttgt ttagaaagca tgcattgtaat gtatgtatgc agtatgcctt acttaaaaag attaaaaagga tactaatgtt aaatcttcta ggaatagaa cctagacttc aaagccagta ttgttttagg tcatgaagca acaatgtct taatcacaat attaaactgt taattaaaaa gttgtaacaa gtataaaaca ggaatgtaa gtttattacc aaagtgtatg ttattccaaa aaagtcatag aagatgaagc actataatat tgttcccata ttttataat accaaagta acatcttaata ccagtatatc agaggaaaat tttcgtatgc tttgtaaaat aatatactca tcatagaaaa cttgaaaaat gcagaaatgt ataaaaaagc aaaaatgatt actgataata tcacaaccca gaagtaacca cttttaaaaa gcaaccccca tgtatgccta tatgtgtatt gtatactttt tttacataat tggagtcata ctgtaaacag ttttataagt agatcttttt cattgcaaaa ttgccacatt ttcttatggc attaaaaatt ttacaaaaac ataattttta tggctatatt atattccatt taatggatgc aactcagttt atttaacatt tccatgtgtg ttaactattt aggttgtttc taattttcat tattataaag ttgcagaaaat ttgtgtg MRAISTIPV ISOQFTAMN EPQCFYNESI AFFYNRSGKH LATEWNTVSK LVMGLGITVC P IFIMLANLLV MVAIYVNRFF HFPIYILMAN LAAADFFAGL AYFYLMNTG PNTRRLTVST WLLRQGLIDT SLTASVANLL AIAIERHITV FRMQLHTRMS NRRVVVVIV IWTMAIVMGA IPSVGWNCIC DIENCSNMAP LYSDSYLVFW AIFNLVTFV MVVLYAHIFG YVRQRTMRMS RHSSGPRRNR DTMSLLKTV VIVLGAFLIC WTPGLVLLLL DVCCPQCDVL AYEKFFLLLA EFNSAMNPPII YSYRDKEMSA TFRQILCCQR SENPTGPTE SDRSASSLNH TILAGVHSND HSVV	Homo sapiens
153	3038	G Protein-Coupled Receptor MRG	ttttgtattt gttgcaccct aagtctgttc atttcttctt cctcagctga catttgagc A atagcagtcg atgatgcccac cacagacact gcctgagact cagccctctg gagaaacgca gatttcccta ttttccaggt caagtcctgc cagccataga aaggacttct ttggtgccaa ctgctgtgaa atgcctgcct tggaaatctc agtgcctcct tgtacctgtc tgagcccagg gaaatgccat actgtggcac tgcctgcaccc ggccaggtgc cccaaaggatg cccaggaactg gtttgaaaga gatgagacat ggccaggtgc gtggctcacg cttgtaatcc agcactttgg gaggtcaagg cagtggatca caaggtcaga gttgagacca gccaggccaa tatggtgaaa accccatctc tactaaaaat acaaaaaatt agccgggcaa tgggtggtggg tgcctgtagt tccagctagt caggaggccg aggcaggaga atcgcttgaa cctggaagggt ggaggttcca gtgagctgag atcgcgccac tgcactccag cctgggtgac agagtggagac tccaactcaa	Homo sapiens

154	3038	G Protein- Coupled Receptor MRG	AAB21255.1	<p> aaaaaaaaa aaaaagaga tgagacacta gtgtctcatg agtagaacct ggaccagaca  caaatctcca ttccaatgt ttagtgcttc attagtccc aacaacaaga tattgggtct  atgtgggtag gctggggca tcctgtacaa caggagatgt gttaggggag ggagaacaga  tcacaaattc atggagagct atttgcagag cagatactcc catccactct gatatgtagt  taatgttcag ctgttcttaa aaagcacacc caacaatggg tgttctattc cagcctagga  aaatgtagag gcaaggggtc tgaggccaga ggacaccact agatggacca ctgtctctga  ctgtgatgtt gtggccact caggtccccc caccctatgg tctgggggaa aatttgcctgg  ttcagccaga gggctggatg gacagtgttt gctgagtcac agatatctct ctcattgtagc  ctttgtctcc acagtgtga ccaggaggca cagaacccaa acctggtatc tcagctctgt  ggcgtctttc ttcaaaatga gacgaatgaa accatacata tgcagatgag catggcagtg  ggacagcagg ccttgccctt gaatatcatt gcccacaagg ctgtgctggt ctcctctgt  gggtctttat tgaatggcac tgbtctctgg ctgctttgtct gtggggccac gaatccctac  atgggtataca tctccacct ggtcgctgct gacgtgatct atctttgtct ctcggcagtg  gggttctttac agtgactct gctaaacttat catggagtgc tgttttttat ccttgatttc  ctggccatat tgtctccctt ctcctttgag gtgtgtctct gtctcctggt ggccatcagc  acagagcgggt gtgtgtgtgt cctcttcccc atctgtgaca gatgccacg cccaaatac  acatctaattg ttgtctgcac cctcatctgg ggctgacctt ttgcatcaa catagtaaaa  tcaactttcc taacttactg gaaacatgta aaggcatgtg tcatatttct aaagctttct  gggctcttcc atgctatcct ttcacttgtg atgtgtgtgt cgagtctgac tctactcatt  agattcctgt gctgctccca gcagcaaaag gccaccaggg tctatgcggt ggtgcagatc  tcggcccccct tgttctctact ctgggcccct cccctgagcg tggcaccct cataacagat  ttcaaaatgt ttgtcaccac cctctattta attcctgtgt tctcattat aaacagcagc  gccaaacctt tcatttattt ctttgtgggg agcctcagaa agaaaaggct gaaggaaatct  ctcagagtga ttctccaaag ggcgttagca gataagccag aggtggggag gaacaaaaag  gcagctggca tcgacccaat ggagcaacca cactctactc agcatgtga gaaccttctt  cccagggagc acagggtcga tgtggaacca taatttccca catctgagct ggggaattgt  acacatagta accagcctg ttctgcatca taaggtgctt gcatcaaatc aatgctttat  tctaataaag ttcagctttc atggacttcc aaaaacaccc cttgctgttt gtggttgga  gagacattaa ctctcttctt aggcagtaag cccagtttga atgtgtcca gtccaacga  tgagggggaat gggaccaggt gagacttcc tgggtacctgt ggaatccaaa taaagaccat  acaaaggcat gaattc </p>	Homo sapiens
155	3057	Melanocortin 3 Receptor (MC3R)	NM_019888	<p> atgagcatcc aaaagaagta tctggaggga gattttgtct ttcctgtgag cagcagcagc  ttcctacgga ccttgctgga gcccagctc ggatcagccc ttctgacagc aatgaatgct  tcgtgtgccc tgcctctgt tcagccaaca ctgcctaagt gctcggagca cctccaagcc </p>	Homo sapiens

Homo  
sapiens

P

tag

156 3057 Melanocortin NP\_063941.1  
3 Receptor  
(MC3R)

cctttcttca gcaaccagag cagcagcgcc ttctgtgagc aggtcttcat caagcccgag  
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ctggaattgc gcaacacct tagggagatt ctctgtggt gcaacggcat gaacttggga

Homo  
sapiens

A

157 3058 Melanocortin NM\_005912  
4 Receptor  
(MC4R)

atggtgaact ccaccacccg tggatgtcac actctctgc actctggaa ccgcagcagt  
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tttttcatct gcagcttggc tgtggctgat atgctgtga gcgttcaaa tggatcagaa  
accattatca tcaccctatt aaacagtaca gatacggatg cacagagttt cacagtgaat  
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ggcattttgt tcatcattha ctcagatagt agtctgttca tcatctgctt catcaccatg  
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atgtctcact ttaacttga tctcatatg atcatgtga attcaatcat cgatcctctg  
atttatgcac tccggagtca agaactgagg aaacacttca aagagatcat ctgttctcat  
cccctgggag gcctttgtga cttgtctagc agatattaa

Homo  
sapiens

P

158 3058 Melanocortin NP\_005903.1  
4 Receptor

YEQLFVSPEV FVTLGVISLL  
LKGYSDDGGC TIIITLLNST DTDAQSFVN

159	(MC4R)	3059	Melanocortin 5 Receptor (MC5R)	NM_005913	IDNVIDSVIC SLLASICSLS LSAVDRYFT IFYALQYHNI MTVKRVGIII SCIIWAAC TVS GILFIYSDS SAVIICLITM FFTMLALMAS LYVHMFELMAR LHIKRIAVLP GTGAIRQGAN MKGAITLTIL IGVFVVCWAP FFLHLIFYIS CPONPYCVCF MSHENLYLIL IMCNSIIDPL IYALRSQELR KTFKEIICCY PLGGLCDLSS RY	Homo sapiens
					atgaattcct catttcacct gcatctcttg gatctcaacc tgaatgccac agaggggcaac A ctttcaggac ccaatgtcaa aaacaagtct tcaccatgtg aagacatggg cattgctgtg gaggtgttc tcaactcggg tgtcatcagc ctcttgaga acatcttggc cataggggccc atagtgaaga acaaaaacct gcactcccc atgtacttct tcgtgtgcag cctggcagtg gcggacatgc tggtagagcat gtccagtgc tgggagacca tcaccatcta cctactcaac aacaagcacc tagtgatagc agacgccttt gtgcgccaca ttgacaaatgt gtttgactcc atgatctgca ttccgtggt ggcatecatg tgcagcttac tggccattgc agtggatagg tacgtcacca tcttctacgc cctgcgtac caccacatca tgacggcag gcgctcaggg gccatcatcg ccggcatcgt ggtttctgc acgggtgcg gattgtctt catcctgtac tcagaatcca cctacgtcat cctgtgctc atctccatgt tcttgcgtat gctgttcttc ctggtgtctc tgtacataca catgttctc ctggcgcgga ctacgtcaa gcggatcgcg gctctgccc gggccagctc tgcgggcag aggaccagca tgcaggggcg ggtcacccgc accatgctgc tggcgtgtt taccgtgtc tgggccccgt tcttcttca tctacttta atgcttctt gccctcagaa cctctactgc tctcgttca tgtctcactt caatatgtac ctcatactca tcatgtgtaa ttcctgtatg gacctctca tatatgcctt ccgcagccaa gagatgcgga agacctttaa ggagattatt tgcgtccgtg gtttcaggat cgctgcagc tttcccgaa gggattaa	
160	(MC5R)	3059	Melanocortin 5 Receptor (MC5R)	NP_005904.1	MNSSFHLHFL DLNLNATEGN LSGPNVKNKS SPCEDMGIAY EVFLTGLVIS LENILVIGA P IVKNKHLHSP MYFFVCSLAV ADMLVSMSSA WETITIYLLN NKHLVIADAF VRHIDNVFDS MICISVVASM CSLLAIAVDR YVTIFYALRY HHIMTARRSG AIIAGIWAFC TGCGIVFILI SESTVILCL ISMFFAMLFL LVSLYIHMFL LARTHVKRIA ALPGASSARQ RTSMQGAVTV TMLLGVFTVC WAPFFLHLL MLSCPQLYC SRFMSHFMY LILIMCNSVM DPLIYAFRSQ EMRKTKEII CCRGFRIACS FPRRD	Homo sapiens
					ggagaggggtg tgagggcaga tctgggggtg ccagatgga aggagggcag catgggggac A accgaaggcc cctggcagc accatgaact aagcaggaca cctggagggg aagaactgtg gggacctgga ggcctccaa gactccttc tgcctcctg acaggactat ggctgtgcag ggatccaga gaagacttct gggtccctc aactccacc ccacagccat cccccagctg gggctggctg ccaaccagac aggagcccg tgcctggagg tgcctatctc tgacgggctc ttcctcagcc tggggctggt gagcttggtg gagaacgcgc tgggtggtgc caccatcgcc aagaaccgga acctgcact acccatgtac tgcctcatct gctgcctggc cttgtcgagc ctgctggtga gcgggagcaa cgtgctggag acggccgtca tctcctgct ggaggccggt gcaactgtgg cccgggctgc ggtgctgcag cagctgtgaca atgtcatga cgtgatcacc tgacgctcca tgcgtgccag cctctgctc ctgggcgcca tgcctgtga cgcctacatc tccatcttct acgcactgc ctaccacagc atcgtgacct tgcgcgggc gcggcaagcc gttgcggcca tctgggtggc cagtgtcgtc ttcagcacgc tcttcatcgc ctactacgac cacgtggccg tctgtgtg cctcgtggtc tcttctctgg ctatgctggt gctcatggcc gtgctgtacg tccacatgct ggccccggcc tgcagacag cccagggcat cgcgggctc	
161	(MC1R)	3061	Melanocortin 1 Receptor (MC1R)	NM_002386		Homo sapiens

162	3061	Melanocortin 1 Receptor (MC1R)	NP_002377.2	MAVQGSQRRL ATIAKRNRLH DVIATCSMLS AYYDHVAVLL VTLTILIGIF HSQELRRTLK EVLTCWSW	LGSLNSTPTA SPMYCFICCL SLCFIGAIAV CLVVFFLAML FLCWGPFPLH EVLTCWSW	IPQLGLAANQ ALSDLLVSGS DRYISIFYAL VIMAVLYVHM LTLLVLCPEH EVLTCWSW	TGARCLEVSI NVLETAVILL RYHSIVTLPR LARACQHAQG PTCGCIFKNF EVLTCWSW	SDGLFLSLGL LEAGALVARA ARQAVAAIWW IARLHKRQRP NLFALALIICN EVLTCWSW	VSLVENALVV AVLQQLDNVI ASVVFTSLFI VHQGFGLKGA AIIDPLIYAF	Homo sapiens
163	3079	Melatonin Receptor type 1a	NM_005958	ccgcgcgagc gggacgcgaa gtgctccgcg atcttcacca aacaagaagc gtggtggcca ctgggctatc atattcaaca tagacaaaac acgctggcgg tactcgtgca cacttccctc ctccaggtca aggaattttg aacttcattg tggctgtttg tacggggtac acagccaggg ccgtctccac acgttccggg gcagagtggg cgtgctgtca gagagttaca tgcattcagg ttgcattctt taaatgagca agtgcctctt	cttaacaagt cagggaccat gggacgcgac tcgtgttgga tcaggaaagc tttatccgta tgcactgcca tcaccggcat tgtacagcag ccgtccctgc ccttcgccca tccccatgat gacagagggg tcaccatgtt gcctggccgt tgcccagtta tgaaccaaaa tggtctttgt tgagatggac ggaggaacct gcattataaa tggttaactga ggaaggagtg cttcactttt aatggaacaa attacagagg	ggtcggggcg gcagggcaac gcggccctcg catcctgggc aggaacacat cccgttggtg agtcagtggg cgccatcaac caagaactcc caacctccgt gtcgtctacg ccttcgccca catagtcac gaaacctgac tgtggtttt ggcctctgac ctacatggcg tttcaggaa gttcaggaa tgacagctct caataatgta acgtctgcga tccaaacttt ccctcccaat ggaatgcggt tgcaaacctt tggaacttcc ccctcccaat ggaatgcggt tgcaaacctt tggaacttcc tattgtaaat tagcagaaaa tbttttttct gaaaggctga	gcggcgatgg tgcccaacgc ccgcccagc tcacccctgc gcttagcggt tatttaacaa gcttagcggt tctctatgg cgctactgct tgctccctac tccagtcaga ccatgcctgc tctgtttacc cgaaaaacca cccgccagca tatttcaaca gaatacagga aacgacgtgg gtaaagggtg actccgttta cttgacagat tgccatagtt acctggctgc ctactagtca tcagggctgg tcagggctgg tattgtaaat tagcagaaaa gtgaacttcc ccctcccaat ggaatgtatg ggtgagagta agctgctgaa gaaggggtaa attttattta caacaatga aagtgggggtg catcaacaat	Homo sapiens		



164	3079	Melatonin Receptor type 1a	NP_005949.1	<p>cacaaccaca accaacacca caaacctttc agctggcaga gttagcattg ggtagctata ctcatggtca taaatgtttg ccgctctata ttacagattg tgcagtgaac cagataaaga actaaatcat agccgggga cagtcgctca cactgtaat ctccagcactt tgggaggctg aggtgggcag atcaactgag ttccaggatt tgagaccacc ctggggcaac atgatgaaat cccatctcta aaaaaatata aaaaattatc tgggcatggt gcacacgcct gtaatcccag ctactcagga gactgagtta ggagaatccc ttgagcccca gaggcagagg ttgtggtgag ccgagatcgc gccagtagat tccaaacttag gctacagaaat gagactctgc ccaaaaaaaa aaaaaaaa</p> <p>MQNGSALPN ASQPVLRGDG ARPSWLASAL ACVLIFTIVV DILGNLLVIL SVYRNKKLRN P AGNIFVSLA VADLVVAIYP YPLVLMISFN NGWNLYLHC QVSGFLMGLS VIGSIFNITG IAINRYCYIC HSLKYDKLYS SKNSLCYVLL IWLLTLAAVL PNLRAGTLQY DPRIYSCTEFA QSVSSAYTIA VVVFHFLVPM IIVIFCYLRI WILVLQVRQR VKPDRKPKLK PQDFRNFVTM FVVFVLFALC WAPLNFILGLA VASDPASMPV RIPEWLFVAS YVMAYFNSCL NAIYGLLNQ NFERKEYRRII VSLCTARVFF VDSNDVADR VKWKPSPMLT NNNVVKVDSV</p>	Homo sapiens
165	3080	Melatonin Receptor type 1b	NM_005959	<p>acgcgagctg ggcagggaag agagcgcccg gctcagtagt ggcgcgcgcc tgcgggctgtc A cggggcccgcg cgggtggccaa agcacagcgc gggagagtagt cgcgatgtcag agaacggctc cttcgccaaac tgcgtcgagg cggcggggtg ggcagtgccg ccgggctggt cgggggctgg cagcgcgcg cctccaggga cccctcgacc tccctgggtg gctccagcgc tgcgcgcggt gctcatcgtc accacgcgcg tggacgtcgt gggaacccct ctggtgatcc tctccgtgct caggaaccgc aagctccgga acgcaggtaa tttgttcttg gtgagtcctg cattggctga cctggtggtg gcctctacc cctaccgct aatcctcgtg gccatcttct atgacggctg ggccctgggg gaggagcact gcaaggccag cgccttcttg atgggcttga gcgtcatcgg ctctgtcttc aatatactg ccatacgccat taacctctac gctacatct gccacagcat ggcctaccac cgaatctacc ggcgctggca caccctctg cacatctgct tcatctggct cctcacctg gtggccttgc tgcccaactt ctttgtgggg tccctggagt acgacccag catctattcc tgcacctca tccagaccgc cagcacccag tacacggcgg cagtgggtggt catccacttc ctcctcccta tcgctgtcgt gtccttctgc tactgcga tctgggtgct ggtgcttcag gccgcaggga aagccaagcc agagagcagg ctgtgctga agccagcga cttgcgagc tttctaacca tgtttgtggt gtttgtgac ttgtccatct gctgggctcc acttaactgc atcgccctcg ctgtggccat caacccccaa gaaatggctc ccagatccc tgaggggcta tttgtcacta gctacttact ggcttatttc aacagctgcc tgaatgccat tgtctatggg ctcttgaacc aaaaacttcg cagggaatac aagaggatcc tcttggccct ttggaaccca cggcactgca ttcaagatgc ttccaaggcc agccacgcgg aggggctgca gagccagct ccaccatca ttggtgtgca gcaccaggga gatctctct agcctggatc tgaggcacac cagcagcatg acaaaactcat gaaatgtgg gagagagtct gctgcaaggg tgagaccagg cagcctgctg ggccacactg tctgttggc atcacagccc caaggctggg ggaacttcat gctgggacaa gcagcccatc aacgccatgg gtccaggctg atccaggaga tgctcacagg ccacaggacc tggaaaacac tcttgggtgt gtcttgggga ttgtgtgac acaagaccaa ggaaggga gaatgaggaa aggcctgggg cagaagagcc caactccttc tcatagctga cctcactct cctgccttgg cctcctggt gcttctccc ctccccca gcatggcagg atctcttctt gttagcaagg atgaaagaga gaggtcagta ggaactggaac</p>	Homo sapiens

166	3080	Melatonin Receptor type 1b	NP_005950.1	<p>ttgtaacta caagggcctc agtggggca ggtgcagagg gc</p> <p>1 MSENGSFANC CEAGGWAVRP GWSGAGSARP SRTPRPPWVA PALSALVIT TAVDVVGNLL P</p> <p>VILSVLRNRK LRNAGNLFV SLALADLVA FYPYPLILVA IFYDGNWALGE EHCKASAFVM</p> <p>GLSVIGSVFN ITAIAINRYC YICHSMAYHR IYRWHTPLH ICLIWLLTVV ALLPNFFVGS</p> <p>LEYDPRIYSC TFIQTASTQY TAAVVVIHFL LPIAVVSLFY LRIWLVLOA RRRKAKPESRL</p> <p>CLKPSDLRSE LTMFVVEVIF AICWAPINCI GLAVAINPQE MAPQIPEGLF VTSYLLLAYFN</p> <p>SCLNIAIVYGL LNQNFRREYK RILLALWNPR HCIQDASKGS HAEGLOQSPAP PIIGVQHQAQ</p>	Homo sapiens
167	3081	Melatonin- Related Receptor	NM_004224	<p>AL</p> <p>1 tggttgctgt ctggacctgg ctgctgaccc tggagctgct gggagatctt aacgatcccc A</p> <p>aggagcaaca tggggccccc cctagcggtt ccaccccct atggctgtat tggctgtaag</p> <p>ctaccccagc cagaataccc accggtcta atcatcttta tgttctgcgc gatggttacc</p> <p>accatcgttg tagactaat cggcaactcc atgttcctg gtcagctctt ctgtggccga tatgctggg</p> <p>aagctccgga attctggcaa catcttcctg gatgctgcat gccatgtcca ttgggggctg ggatctgagc</p> <p>gccatctacc catacccttt cagagatggt cgggttcac accaggtcga gtgtggctcg ctcacatctc</p> <p>cagttacagt gccatgctat caaccgttac tgctacatc gccacagcct ccagttacgaa</p> <p>aacatcgttg gtgtgcgcaa tacctgcatc tacctggcca taccctggat catgaccgtc</p> <p>cggatcttca tggcccaacat gtacattggc accatcgagt acgatccctg cacctacacc</p> <p>ctggctgtcc tgcattctga caaccctgtc ttcactgta ccatcgctg catccacttc</p> <p>tgcatcttca actatctgaa tccatctgt gggtttctgc taccgtgaga tctggaccac agtgcgtggc</p> <p>gtccctccctc tccatctgt cctcctgtc gaatcctgac aaccaactg ctgaggttctg caattttcta</p> <p>gcccgtgacc ctgcagggca gaatcctgac aaccaactg gtgtgctggt gccatatac cgtgctcact</p> <p>accatggttg tgatcttct cctctttgca gtgtgctggt gccatatac cgtgctcact</p> <p>gtcttggttg ctgtcagtc gaaggagatg gcaggcaaga tcccaactg gctttatctt</p> <p>gcagcctact tcatagccta cttcaacagc tgcctcaacg ctgtgacta cgggctcctc</p> <p>aatgagaatt tccgaagaga atactggacc atcttccatg aggcccgtag cctggcccg</p> <p>ttcttccctg gccatcag tgatattcgt gaataagacc gtgccatgc ctgtcctgct</p> <p>gcccgtgcc atgctcgca ccaagctcgt gtccggaat gtccattac ctggtgagtc tgcagctggc</p> <p>gtggaggaaa ccccgatgaa tgcctggaat cccattcca gatcctctc tgcctatcgc</p> <p>cacccgacc gtgcctctg caaccctaa caagtctgtc tttagccact ccaaggctgc ctctggtcac</p> <p>aaatctgct ctaccacca caagtctgt cctcaagcct gccctggtc accccaagtc tggcactgtc</p> <p>ctcaagcctg tctctggcca ccaattcaag ggtgactctg tccattcaa gggtagactct</p> <p>tacctaaagc ctgctctgt agctgactc tggcagccac tccagctgtt ccagcaacc caagcccatc</p> <p>gtccatttca agctgactc atgtctctg tggcagccac tccagctgtt ccagcaacc caagcccatc</p> <p>actggccacc atgtctctg agctacagc agctacagc ccaagctgtg ccttcagtc tggcaccagc</p> <p>caccctaaac ccatcaagcc agctacagc agctacagc ccaagctgtg ccaagctgtg tggcaccagc</p> <p>aagcctgcca ctaccagcca cctcaagccc cctgctgctg acaaccctga gctctctg</p> <p>tcccatgccc ccagatccc tgcattgccc caccctgtg ctgacgacag tgacctcct</p> <p>gagtcggcct ctgacctgc cgtggggccc accaagcctg ctgacgacag gctggagctct</p> <p>gacacctgc ctgaccttc tgacctact gtagtacta ccagttacca tgattaccat</p> <p>gatgtcgtgg ttgttgatgt tgaagatgat cctgatgaaa tggctgtgtg aaaaatgctc</p> <p>tctgaggtgg ccaggcagt</p>	Homo sapiens

168	3081	Melatonin- Related Receptor	NP_004215.1	MGPTLAVPTP YGCIGCKLPQ PEYPPALIIF MECAMVITIV VDLIGNSMVI LAVTKNKKLR P NSGNIFVUSL SVADMLVAIY PYPIMLHAMS IGGWDLSQLQ CQMVGFI TGL SVVGSIFENIV AIAINRYCYI CHSLQYERIF SVRNTCIYLV ITWIMTVLAV LPNMYIGTIE YDPRTYTCIF NYLNNPVFTV TIVCIHEVLP LLIVGFYVR IWKVLAARD PAGQPNQNL AEVRNFLTME VIFLLEFVAV CPINVLTVLV AVSPKEMAGK IPNWLILYLAAY FIAYNSCLN AVIYGLLNN FRREYWTIFH AMRHPPIIFF GLISDIREMQ EARTLARARA HARDOAREQD RAHACPAVEE TPMNVNRNVL PGDAAAGHPD RASGHPKPHS RSSSAYRKSA STHKSVFESH SKAASGHLKP VSGHSKPASG HPKSATVYPK PASVHFKGDS VHFKGDVHF KPDSVHFKPA SSNPKPITGH HVSAGSHSKS AFSAAATSHPK PIKPATSHAE PTTADYPKPA TTSHPKPAAA DNPELSASHC PEIPAIAHPV SDDSDLPESA SSPAAGPTKP AASQLES D TI ADLPDPTVVT TSTNDYHDVV VVDVEDDPDE MAV	Homo sapiens
169	3093	Metabotropic Glutamate Receptor 1	NM_000838	A gagggcggtcg tggaggaccc agaggaggag gcaaaggcct tggagaccca ttgttggcga gcgtcttggg ggtgcgcgc ccggagccctgc ggtgtgggac ctcgtcccca ccaccatggt cttttgggag gtgcccctc tccccagaag gtcgtctcag cgtcgtggtg ccagaaatgga agtcaccac cagcctccgg ccgagaaagt gcagtatggc atccagaggg tggaggccat cccggtcctc ctgcccaca tcaccctggg ttcgtgggt ctggaacaga gcattgagtt tgagaaggat gggatcaacc ggtgtctgcc taagaagccc attgcgagg tgatcgtcc gaacctgctc cagctcttcg acatccccc gagtgacaaa actttgtaca aatacttct aagggccatg cttagacatag tcaaacgtta ggaagggaat tatggggaga gcggaatgga cctctgtatc gccattctg acaaaatcta actcttgcgc aaactccgag agaggcttcc aggcatgaca gtgcaggagc tcctgagcgc ctcactcatt ggaagtgat gatgggcaga ggaagccaac gggggaatca cgataaagct ttattctctg aaactgaggc tggacactaa gcaacatcgg ttccagtgc cccttccagg aatctgcaca atctgcaca gcttagaaga tgtcatcaat gccatctatg ccattggcaca ccctggccac gtgggcccct gcgatgccat cttccctcgc aagtcctcat tcattggagt aggagacgct cctggaaggt atgatcatc tgactatgtg cactgtgaa cctggcatga ccagatgaac aagatggag tggtcggctc	Homo sapiens

tgtgtgcagt gaggccttgct taaagggccca gattaaggtt atacgggaaag gagaagtggag  
ctgtgtctgg atttgcacgg cctgcaaaaga gaataaatat gtgcaagatg agttcacctg  
caaaagcttg gactgggat ggtggcccaa tgcagattcta acagctgtg agccattcc  
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cattctcgg gactacaagc aaagtctt cctccacac ctccagagat gtgcaaacag ctgggaggaa  
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 tccatcagca tgagactttg aaaaaaaa cacatgatca gcttctcatg ttccatattc  
 acttattggc gatttgggga aaagccgga acaagagatt gttacgagag tggcagaaac  
 cctttgtag attgacttgt gtttggcca agcgggcttt ccattgacct tcagttaaag  
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 atgtgttttc cttcggttg ttactgcctt ttgtcaataa atcttgacaa tgcgtgataa  
 taaatatttt ctatttatt

sapiens

Homo sapiens

Glutamate  
Receptor 1

171 3094 Metabotropic NM\_Glutamate Receptor 2 NM\_000839

KVPERKCGEI	REQYGIQORVE	AMEFHTLDKIN	ADPVLLPNIT	LGSEIRDSCW	HSSVALEQSI
EEFIRDSLSISI	RDEKDGINRC	LPDQSLPPG	RTKKPIAGVI	PGSSSSVAIQ	VQNLLQLFDI
PQIAYSATSISI	DLSDKTLKYI	FLRVVPSDTL	QARAMLDIVK	RYNWTYVSIV	HTEGNYGESG
MDAFKELAAQ	EGLCIAHSBK	IYSNAGEKSF	DRLLRKLRR	LPKARVVVCF	CEGTMVRGLL
SAMRRLGVVG	EFSLIGSDGW	ADRDEVIEGY	EVEANGGITI	KLOSPEVRSF	DDYFLKLRLD
TNTRNPWFPE	FWQHRFQCRL	PGHLEENPNF	KRICTGNESL	EENYVQDSKM	EKFVINALYM
AHGLQNMHHA	LCPGHVGLCD	AMKPIDGSKL	LDFLIKSSFI	GVSGEWFWD	EGDAPGRYD
IMNLQYTEAN	RYDYVHVGTW	HEGVNLIDDY	KIQMNKSFFI	RVSCESECLK	GQIKVIRKGE
VSCCWCITAC	KENENYQDEF	TKCAVNLGWW	PNADLTGCEP	IPVRYLEWSN	IESIIAIAFS
CGLILVTLFV	TLIFVLYRDT	PVVKSSSREL	CYIILAGIFL	GYVCPFTLIA	KPTTTSYQLQ
RLLVGLSSAM	CYSALVTKTN	RIARILAGSK	KKICTRKPRF	MSAWAQVILIA	SILISVQLTL
VVTLIIMEPP	MPILSYPSIK	EYVLICNTSN	LGWVAPLGN	GLLIMSCYYI	AFKTRNVPAN
FNEAKYIAFT	MYTTCIIWLA	FVPIYFSGNY	KIITTCFAVS	LSVTVALGCM	ETPKMYIILIA
KPERNVRSAF	TTSDDVVRMHV	GDGKLPCRSN	TFLNIFRRKK	AGAGNANSNG	KSVSWSEPGG
GOVPKGQHMW	HRLSVHVKTN	ETACNQTAVI	KPLTKSYQGS	GKSLTFESDTS	TKTLYNVEEE
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172	3094	Metabotropic NP_000830.1 Glutamate Receptor 2	aggtccgctt tgaccgcttt ggtgatggta ttggccgcta caacatcttc acctatctgc gtgcaggcag tggcgcttat cgtaccaga agtggggcta ctgggcagaa ggcttgactc tggacaccag cctcatccca tgggcctcac cgtcagccgg cccctcgcc gcctctcgct gcagtgcacc ctgcctccag aatgaggtga agagtgtgca gccgggcgaa gtctgctgct ggctctgcat tccgtgccag ccctatgagt accgattgga cgaattcact tgcgctgatt gtggcctggg ctactggccc aatgcagacc tgcctggctg ctgcgaactg cccaggagt acatccgctg gggcgatgcc tgggctgtgg gacctgtcac catcgctgc ctgggtgccc tggccacctt gtttgtctg ggtgtctttg tggcgacaaa tggcacacca gtggtcaagg cctcaggtcg ggagctctgc tacatctctg tgggtgtgtt ctctctctgc tactgcatga ccttcacttt cattgccaa ccatccacgg cagtgtgtac cttacggcgt cttgggttgg gcaactgcctt ctctgtctgc tactcagccc tgctcaccaa gaccaaccg attgcacgca tcttcggtgg ggcgcgggag ggtgccagc ggcacgctt catcagctct gcctcacagg tggccatctg cctggcaactt atctcgggc agctgctcat cgtgtgcgc tggctggtgg tggaggcacc gggcacaggc aaggagacag ccccggaacg gcgggaggtg gtgacactgc gctgcaacca ccgcatgca agtatgttgg gctcgtggc ctacaatgtg ctctcatgc cgctctgcac gctttatgcc ttcaatactc gcaagtggc cgaatacttc aacgaggcca agttcattgg cttcaccatg tacaccact gcatcatctg gctggcattg ttgccatct tctatgtcac ctccagtgc taccgggtac agaccacac catgtgcgtg tcagtcagcc tcaggcgctc cgtggtgctt ggtgcctct ttgccccaa gctgcacatc atctcttcc agccgcagaa gaacgtggtt agccaccggg caccacacag ccgctttggc agtgcgtg ccagggccag ctccagcctt ggccaaagggt ctggctccca gttgtcccc actgtttgca atggccgtga ggtggtggac tcgacaact catcgctttg a	Homo sapiens
173	3095	Metabotropic NM_000840 Glutamate Receptor 3	MGSLALLAL LPLMGAVAE GAKVLTLEG DLVLGGLFPV HQKGPAEDC GPVNEHRGIQ P RLEAMLFALD RINRDPHLLP GVRLGALHLD SCSKDTHALE QALDFVRASL SRGADGSRHI CPDGSYATHG DAPTAITGVI GGSYSYDVSIQ VANLLRLFQI PQISYASTSA KLSDKSRYDY FARTVPPDFE QAKAMAEILR FENWTYVSTE ASEG DYGETG IEAFELEARA RNICVATSEK VGRAMSRAAF EGWRALLQK PSARVAVLFT RSEDARELLA ASQRLNASFT WVASDGMGAL ESVVAGSEGA AEGAITIELA SYPISDFASY FQSLDPWNNS RNPWFREFWE QRFRCFRQR DCAHSLRAV PFEQESKIMF VVNAVYAMAH ALHNMHRALC PNTRLCDAM RPNVGRRLYK DFVLNVKFDA PFRPADTHNE VRFDREFGDI GRYNIFTYLR AGSGRYRYQK VGYWAEGLTL DTSLLPWASP SAGPLAASRC SEPCLQNEVK SVQPGEVCCW LCIPCQPYEY RLDEFTCADC GLGYWPNASL TGC FELPQEY IRWGDWAVG PVTIACLAL ATLFLVGVFV RHNATPVVKA SGRELCPYLL GGFLCYCMT FIFIAKPSTA VTLRLRLGLG TAFSVCSAL LTKNRIARI FGGAREGAQR PRFISPAQV AICLALISGQ LLIVVAVLWV EAPGTGKETA PERREVTLR CNHRDASMLG SLAYNVLLIA LCTLYAFENR KCFENFNEAK FIGFTMYTTC IWLALLPIF YVTSDDYRVQ TTTMVCVSVSL SGSVLGLCLF APKLHILFQ PQKNVWSHRA PTSRFGSAAA RASSSLGQGS GSQFVPTVCN GREVVDSTTS SL	Homo sapiens

gaaacaggat tcatgaagat gttgacaaga ctgcaagttc ttaccttagc tttgttttca  
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174	3095	Metabotropic NP_000831.1 Glutamate Receptor 3	<p>tgttgtgttg caccaaggt tcacatcatc ctgtttcaac ccagagaaga tgttgtcaca  cacagactgc acctcaacag gttcagtgct agtgggaactg ggaccacata ctctcagtc  tctgcaagca cgtatgtgcc aacggtgtgc aatggcgagg aagtcctcga ctccaccacc  tcattctgtg gatttgaat tgagttcag ttctgtgtgt tttagactgt tagacaaaag  tgctcacgtg cagctccaga atatggaac agagcaaaag acaaaccccta gtacctttt  ttagaacacg tacgataaat tatttttag gactgtatat agtgatgtgc tagaactttc  taggctgagt ctagtcccc tattattaac aattccccca gaacatggaa ataaccattg  tttacagagc tgagcattgg tgacagggtc tgacatggtc agtctactaa aaaaacaaaa  aaaaaacaaa aaaaaaaa acaaaagaaa aaaaataaaa tacggtggca atattatga  acctttttc ctatgaagt ttgttaggt cctgtgtgta actaatattag gatgagtttc  tatgttgat attaaagtta cattatgtgt aacagattga tttctcagc aaaaataaa  aagcatctgt attaatgtaa agatactgag aataaaacct tcaagggtttt  MLTRLQVLT ALFSKGFLS LGDHNELRRE IKIEGDLVLG GLFPINEKGT GTEECGRINE P  DRGIQRLEAM LFAIDEINKD DYLLPGVKLG VHILDTCSRDTYALEQSLEF VRASLTKVDE  AEYMCPTDGSY AIQENIPLLI AGVIGGSYSS VSIQVANLLR LFOIPIQISYA STSAKLSDKS  RYDYFARTVP PDFYQAKAMA EILRFENWTY VSTVASEGDY GETGIEAFEQ EARLRNICIA  TAEKVGSRNI RKSYSVIRE LLQPNARV VLFMRSDSR ELIAASRAN ASFTWVSDG  WGAQESIIG SEHVAYGAT IELASQPVQ FDRYFQSLN YNNHRNPWF DFWEQKFQCS  LQNRNHRV CDKHLAIDSS NYEQESKIME VNAVAYAMAH ALHKMORTLC PNTTKLCDAM  KILDGKKLYK DYLLKINFETA PENPNKDADS IVKFDTFDGG MGRYNNVFQ NVGKYSYLK  VGHWAETLSL DVNSIHWSRN SVPTSQCSDP CAPNEMKNMQ PGDVCCWICI PCEPYEYLAD  EFTCMDCGSG QWPTADLTGC YDLPEDYIRW EDAAWGPVIT IACLGFMCTC MVTVFIKHN  NTPLVKASGR ELCYILLFGV GLSYCMTEFF IAKSPVICA LRLGLGSF AICYSALLTK  TNCIARIFDG VKNGAQRPKF ISPSSQVFIC LGLILVQIVM VSWLILEAP GTRRYTLAEK  RETVILKCNV KDSSMLISLT YDVLIVILCT YVAFKTRKCP ENFNEAKFIG FTMVTTCTIHW  LAFLPIFYVT SSDYRVQTTT MCISVSLSGF VWLGCLFAPK VHILFQPOK NVVTHRLHLN  RFSVSGTGTT YSQSSASTYV PTVNNGREVLDSTSSL</p>	Homo sapiens
175	3096	Metabotropic NM_000841 Glutamate Receptor 4	<p>ccgagtga caagggtggg agagggtagc agcaggttgg ctgcccctcag A  tccccctgct gctgaagctg cctgcccacg gccgtggggc caggggcctg  ccagggtcag gagtgggctt gccgttcag ggtctctagg gatttccag atgacctgga  agagaggctt gggctggtgg tggggccggc tgcccccttg cctgctctc agcctttacg  gccccctgat gccttctcc ctgggaaagc ccaaaaggcca cctcacatg aattccatcc  gcatagatgg ggacatcaca ctgggaggcc tgttcccggt gcattggcgg ggctcagagg  gcaagccctg tggagaactt aagaaggaaa agggcatcca ccggtggag gccatgctgt  tcgcccctga tcgcatcaac aacgaccccg actgctgcc taacatcacg ctgggccc  gcattctgga cacctgctcc agggacaccc atgcccctga cagctgctg acctttgtgc  agggcctcat cgagaaggat ggacacaggg tccgctgtgg cagtggcggc ccaccatca  tcaccaagcc tgaacgtgtg gtgggtgtca tcggtgtctc agggagctcg gtctccatca  tgggtggccaa cctccttcgc ctcttcaaga taccacagat cagctacgcc tccacagcgc  cagacctgag tgacaacagc cgctacgact tcttctccc cgtggtgccc tcggacacgt  accaggccca ggcctggtg gatcagctcc gtgcccctcaa gtggaactat gtgtccacag</p>	Homo sapiens

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176 3096 Metabotropic NP\_000832.1  
Glutamate Receptor 4 Homo sapiens

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177 3097 Metabotropic NM\_000842  
Glutamate Receptor 5 Homo sapiens

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tgaaaatcga accgagtc aggatattcc catcatcaaa ctggagtggc actccccctg  
ggctgtgatt cctgtcttcc tggcaatgtt ggggatcatt gccaccatct ttgtcatggc  
cactttcatc cgctacaatg acacgcccc tgctcgggca tctggcggg aactcagcta  
tgttcttttg acgggcatct ttctttgcta catcatcact ttctgtatga ttgccaaacc  
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tgacgccctc ttgacgaaaa caaatcgat ttatccataa ttgagcagg gcaagaaatc  
agtaacagct ccagactca taagcccaac atcacactg gcaatcactt ccagtttaat  
atcagttcag cttctagggg gtgtcatttg gtttgggtgt gatccacca acatcatcat  
agactacgat gaacacaaga caatgaaccc tgagcaagcc agaggggttc tcaagtgtga  
cattacagat ctcaaatca ttgtctcctt gggatatagc attcttctca tggtcacatg

tactgtgtat gccatcaaga ctccgggggtgt acccgagaat tttaacgaag ccaagcccat  
 tggattcact atgtacacga catgtatagt atggcttgcc ttcattccaa ttttttttgg  
 caccgctcaa tcagcggaaa agctctacat acaaaactacc acgcttacaa tctccatgaa  
 cctaagtga tcagtggcgc tggggatgct atacatgccg aagtggtaca tcatcatattt  
 ccaccctgaa ctcaatgtcc agaaacggaa gcgaagcttc aaggcggtag tcacagcagc  
 caccatgtca tcgaggctgt cacacaaacc cagtacaga ccaacgggtg aggcaaaagac  
 cgagctctgt gaaaacgtag acccaaacag ccctgctgca aaaaagaagt atgtcagtta  
 taataacctg gttatctaac ctgttccatt ccatggaacc atggagaggg aagaccctca  
 gttattttgt caccacaact ggcataggac tctttggtcc taccgcttc ccatcaccgg  
 aggagcttcc ccggccggga gaccagtgtt agaggatcca agcaccataa acagctgctt  
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 ggctgcaatt gtggaccttc cctaccacaa ggagtggtga aactcaagtc ccgccccggc  
 tctttagaat ggaccactga gagccacagg accgttttgg ggctgacctg tcttattacg  
 tatgtacttc taggttgcaa ggttttgaaa tttctgtac agttgtgag gacctttgca  
 ctttgccatc tgatgtcgta cctcggttca ctggttgttt tggaaatgct tgttttcata  
 gagccctatt ctctcagacg gtggaatatt tggaaaaatt ttaaaacaa taataattta  
 aagcaatctt ggcagactaa acaagtaca tctgtacatg actgtataat tacgattata  
 gtaccactgc acatcatgtt tttttttt aagacaaaa agatgtttta agacaaaaa  
 ctgtgctgag aaagtatgcc ccacctatct ttggtatatg ataggttaca taaaagggaag  
 gtattggctg aactgaatag aggtcttgat ctttggaaatg catgccagta atgtatttta  
 cagtacatgt ttattatgtt caatattgtt atttggcttc tctttgtta tttttaatta  
 gggatatga atattttgca ataatattaa taattattaa gctgtttgaa ggaagaata  
 tggatttttc atgtcttgag gttttgttca tgcccccttt gactgatcag tgtgataagg  
 actttaggaa aaaaagcatg tatgtttttt actgtttgta ataatgactt tctgtaactt  
 tgctgcttat gtgccaattt agtggaataa acaacccctt gctgaaaaat tccctctttc  
 cattctctt caattctgtg atattgtcca agaattgata aataaggaaat tc  
 MVQLRLRLV ITLMKFPCCV LEVLLCALAA AARGQEMYAP HSIRIEGDTV LGGLFPVHAK P  
 GPSGVPCGDI KRENGIHRLE AMLYALDQIN SDPNLLPNVT LGARILDTC RDTVALEQSL  
 TFVQALIQKD TSDVRCNTE PPVFKPEKV VGVIGASGSS VSIMVANILR LFQIPQISYA  
 STAPELSDDR RYDFFSRVVP PDSFQAQMV DIVKALGWNY VSTLASEGSY GEKGVESFTQ  
 ISKEAGGLCI AQSVRIPOER KDRTIDFDRI IKQLLDPNS RAVVIFANDE DIKQILAAAK  
 RADQVGHFLW VGSDSWGSKI NPLHQHEDIA EGAITIQPKR ATVEGFDAYF TSRTLENNRR  
 NVWFAEYWEF NFNCKLTISG SKKEDTDRKC TQERIGKDS NYEQEGKVQF VIDAVYAMAH  
 ALHNMNKDLC ADYRGVCPEM EQAGGKKLLK YIRNVNFNGS AGTPVMFNKN GDAPGRYDIF  
 QYQTTNTSNP GYRLIGQWTD ELQLNIEDMQ WKGVPCKPG SVCTLPCKPG QRKTKQKGP  
 CCWTCPCPDG YQYQFDEMTD QHCPYDQRP ENRTGCQDIP IIKLEWHSPW AVIPFLAML  
 GIIATIFVMA TFIRYNDTPI VRASGRELSY VLLTGIFLCY IITFLMIAP DVAVCSFRV  
 FLGLGMCISY AALLTKTNRI YRIFEQKKKS VTAPRLISPT SQLAITSLI SVQLLGVFIV  
 FGVDPNNIII DYDEHKTMP EQARGVLKCD ITDLQICSL GYSILLMVT TVYAIKTRGV  
 PENFNEAKPI GFTMYTTCIV WLAFFIPFFG TAQSAEKLYI QTTTLTISMN LSASVALGML  
 YMPKVYIIIF HPENLVQKRK RSFKAVVTAA TMSSRLSHKP SDRPNGEAKT ELCENVDPNS

182

3099 Metabotropic NP\_000835.1  
 Glutamate  
 Receptor 7

Homo  
 sapiens

183	3100	Metabotropic Glutamate Receptor 8	NM_000845	PAAKKKYVS Y NNLVI	Homo sapiens
				tgctgtgttg caagaataaa ctttgggtct tggattgcaa taccacctgt ggagaaaaatg A	
				gtatgcgagg gaaagcgatc agcctcttgc ccttgtttct tccctttgac cgccaagtctc	
				tactggatcc tcacaatgat gcaagaact cacagccagg agtatgccc aatgacacg	
				gtgatgggg acattatttt ggggggtctc ttcctgtgctc agcaaaagg agagagaggg	
				gtgcttgtg ggaagctgaa gaagaaaaa ggaattcaca gactggagg catgctttat	
				gcaattgacc agattaacaa ggacctgat ctccttcca acatcactct ggggtgccgc	
				atcctcgaca cgtgctctag ggacacctat gctttggagc agtctctaac attcgtgcag	
				gcattaatag aaaaagatgc ttcggatgtg aagtgtgcta atggagatcc accattttc	
				accaagcccc acaagatttc tggcgtcata ggtgctgcag caagctcctg tccatcatg	
				gttgctaaca ttttaagact ttttaagata cctcaaatca gctatgcac cacagcccc	
				gagctaagtg ataacaccag gtatgacttt ttctctcgag tggttccgcc tgaactctac	
				caagcccaag ccattgtgga catcgtgaca gcaactggat ggaattatgt ttcgacactg	
				gcttctgagg ggaactatgg tgagagcgtg gtggaggcct tcaccagat ctcgaggag	
				attggtggtg ttgcatgac tcaatccacg aaaaatccac gtgaacccag acctggagaa	
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				gccaatgagg atgacatcag gaggatattg gaagcagcaa aaaaactaaa ccaaatgggg	
				cattttctct ggattggctc agatagtgg ggatccaaaa tagcacctgt ctatcagcaa	
				gaggagattg cagaaggggc tgtgacaatt ttgcccacac gagcatcaat tgaaggattt	
				gacgataact ttgaagccg aactcttgcc aataatcgaa gaaatgtgtg gtttgcagaa	
				ttctgggagg agaatttttg ctgcaagtta ggatcacatg ggaagaggaa cagtcataa	
				aagaaatgca cagggctgga gcgaattgct cggtattcat cttatgaaca ggaagggaaa	
				gtccaatttg taattgatgc tgtatatctc atggcttacg ccctgcacaa tatgcacaaa	
				gatctctgcc ctggatacat tggcctttgt ccacgaatga gtaccattga tgggaaagag	
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				aatgaaaaac gagatgctcc tggacgttat gatatcttcc agtatcaaat aaccaacaaa	
				agcacagagt acaagttcat cggccactgg accaatcagc ttcatctaaa agtggagagc	
				atgcagtggg ctcatagaga acatactcac ccggcgtctg tctgcagcct gccgtgtaag	
				ccaggggaga ggaagaaaaa ggtgaaagg gtccttggct gctggcactg tgaacgctgt	
				gaagggttaca actaccaggt ggatgagctg tctgtgaaac ttggccctct ggatcagaga	
				cccaacatga accgcacagg ctgccagctt atccccatca tcaaatgga tggcattct	
				ccctgggctg tgggtccctgt gtttgttgca atattgggaa tcatcgccac cacctttgtg	
				atcgtgacct ttgtccgcta taatgacaca cctatcgtga gggcttcagg acgcgaactt	
				agttacgtgc tccaaacggg gatttttctc tgttattcaa tcacgttttt aatgattgca	
				gcaccagata caatcatatg ctccttcoga cgggtcttcc taggacttgg catgtgtttc	
				agctatgcag cccttctgac caaaacaaac cgtatccacc gaattattga gcaggggag	
				aaatctgtca cagcgcacaa gttcattagt ccagatctc agctgtgtgat caccttcagc	
				ctcatctccg tccagctcct tggagtgttt gctgtgtttg ttgtggatcc cccccatc	
				atcattgact atggagagca gcggacacta gatccagaga agccagggg agtgcctcaag	
				tgtgacattt ctgatctctc actcatttgt tcaattggat acagtatcct cttgattggtc	

184	3100	Metabotropic NP_000836.1 Glutamate Receptor 8	acttgtagtg tttatgcca taaaacgaga ggtgtcccag agaatttcaa tgaagccaaa cctattggat ttaccatgta taccacctgc atcatttggg tagctttcat ccccatcttt tttggtacag ccaggtcagc agaaaagatg tacatttgcg caaacacat tactgtctcc atgagtttaa gtgcttcagt atctctggc atgctctata tgcctcaagg ttatattata atthttcatc cagaacagaa tgttcaaaaa cgcaagagga gcttcaaggc tgtggtgaca gctgccacca tgcaaacgaa actgatccaa aaaggaaatg acagaccaaa tggcgaggtg aaaagtgaac tctgtgagag tcttgaacc aacatttctt ctaccagac aacatatatc agttacagca atcatttcaat ctgaacacag gaaatggcac aatctgaaga gactgtggtat atgatcttaa ataatcaatg tgaagaccga aaaaattcact cctggagatc tccgtagact acaatcaatc cggggagtg tgaagaccga aaaaattcact cctggagatc tccgtagact tatcaataaa cggggagtg agaaacccgt tttatacaat aaacccaatg agtgcacagc taaaagtattg cttatttcag agcagttaaa caaatcaca aaaggaaaac taatgttagc tcgtgaaaaa aatgctgttg aaataaataa tgtctgatgt tattctgtga ttttctgtg attgtgagaa ctcccgttc tgtccacat tgtttaactt gtataagaca atgagttctgt ttcttgtaat ggtgaccag attgaagccc tgggtgtgtg taaaaataaa tgcaatgatt gatgcatgca attttttata caataaattt atttctaata ataaaggaat gttttgcaaa aaaaaaaaa aaaaactcga g	Homo sapiens
185	3212	Opioid mu-type Receptor	ggaattccgg ctataggcag aggagaatgt cagatgctca gctcggctcc ctcgcctga cgctcctctc tgtctcagcc aggactggtt tctgtaagaa acagcaggag ctgtggcagc ggcgaagagg agcggctag ggcgttgga cccgaagaat ctggtgtgct ctggtacac cgacacggcg tgcggcccg cgcgtcagta ccatggacag cagcgtgccc cccacgaacg ccagcaattg cactgatgc ttggcgtact caagtgtctc cccagcacc agcccggtt cctgggtcaa ctgtccac ttagatggca acctgtccga cccatgcggt cogaaccgca ccaacctggg cgggagagac agcctgtgccc ctccgaccgg cagtcctcc atgatcacg ccatcacgat catggccctc tactccatcg tgtgctgtgtt ggggctcttc ggaacttcc	Homo sapiens

186	3212	Opioid mu- type Receptor	NP_000905.1	MDSSAAPTNA PTGSPSMITA STLPFQSVNY RTPRNAKIIN FAFIMPVLII YVIIKALVTI EQONSTRIRQ	SNCTDALAYS ITIMALYSIV LMGTWPFGTI VCNWILSSAI TVCYGLMILR PETTFQTVSW NTRDHPSTAN	SCSPAPSPGS CVVGLFGNFI LCKIVISIDY GLPVMFMATT LKSVMRLSGS HFCIALGYTN TVDRTNHQLE	WVNLSHLDGN VMYVIVRYTK YNMFTSIFTL KYRQGSIDCT KEKDRNLRLRI SCLNPLVLYAF NLEAETAPLP	LSDPCGPNRT MKTATNIYIF CTMSVDRYIA LTFSHPTWYW TRMVLVVAV LDENFKRCFR EFCIPTSSNI	NLGGRDSLCP NLALADALAT VCHPVKALDF ENLVKICVFI FIVCWTPPIHI FIVCWTPPIHI FIVCWTPPIHI	Homo sapiens
187	3223	Muscarinic acetylcholin e Receptor M1	NM_000738	atgaacactt ggctccctggc acagggaacc aactacttcc ctctatacca	cagccccacc aagtggcctt tgctgggtact tgctgagcct cgtacctgct	tgctgtcagc cattgggact catctctttc ggcctgtgct catggggccac	tgctgtcagc cattgggact catctctttc ggcctgtgct catggggccac	ccgaacatct tgctgtcagc cattgggact catctctttc ggcctgtgct	tgctgtcagc cattgggact catctctttc ggcctgtgct catggggccac	Homo sapiens

188	3223	Muscarinic acetylcholin e Receptor M1	NP_000729.1	<p>tgactatgt ggcagcaat gcctccgtca tgaatctgt gctcatcagc  ttagccgt acttctccgt gactggccc ctgagctacc gtgccaagc cacacccgc  cggcagctc tgatgatcg cctggcctgg ttgtttctct ttgtgtctg ggccccagcc  atcctctct ggcagtaacct cctacacatt ggcacagcca ttgctgctt ctactccct  cagttcctc ccagcccat ctactggcg cctcagagac gcctgaggg agaggaagag  gtcacagtca tgtcacgct ccttcaggg gctgctgag cctacagct ggaaggaag  gagctggcag cccttcaggg gctgctgag cctacatcc tcagagggag agagcctgg ctcggaagtg  tcagagaggt ctcagccagg gctgctgag cctacatcc tcagagggag agagcctgg ctcggaagtg  cgctgctgc gggccccccag gctgctgag cctacatcc tcagagggag agagcctgg ctcggaagtg  gacgaaggct ccatggagtc cctacatcc tcagagggag agagcctgg ctcggaagtg  gtgatcaaga tgccaatggt ggaccccgag gcacagggcc cccaccaagca gccccacgg  agctccccc atacagtcaa gagcccgact aagaaaggcc gtgctcagc tggcaaggcc  cagaagcccc gtggaaggga gcagctggcc aagcggaga ccttctcgt ggtcaaggag  aagaaggcgg ctcggaccct gactgccatc cctcggctt ccatctcac ctggacacgg  tacaacatca tgggtgctggt gtccaccttc tgcagagact gtgtcccca gaccctgtgg  gagctgggct actggctgtg ctacgtcaac agcaccatca accccatgtg ctacgcactc  tgcaacaaa ccttcggga caccttctgc ctgctgctg tttggcgtg ggacaaagga  cgctggcga agatccccc agtcccccag cgccctggc tccgtgcacc gactccctc cgccaatgc</p>	Homo sapiens
				tga	
				<p>NP_000729.1</p> <p>MNTSAPPAVS PNITVLAPGK GPQVAFIGI TTGLLSLATV TGNLLVLISF KVNTEKTVN P</p> <p>NYFLSLACA DLIIGTFSMN LYTYLLMGH WALGTLACDL WLALDYVASN ASVMNLLIS</p> <p>FDRYFSVTRP LSYRAKTRTP RAALMIGLAW LVSEVLWAPA ILFWQYLVE RPKLAGQCYI</p> <p>QFLSQPIITF GTAMAAYLP VTVMCTLYWR IYRETEENAR ELAALQGSSE PKGGGSSSS</p> <p>SERSQPGAEG SPETPPGRCC RCCRAPRLQ AYSWKENRR DEGSMSLTS SEGEPPGSEV</p> <p>VTKMPMDPE AQPTKQPPR SSNTVKRPT KKGRDRAGK QKPRGKEQLA KRKTFSLVKE</p> <p>KKAARTLSAI LLAFLITWTP YNIMVLVSTF CKDCVPETLW ELGYWLICYN STINPMCYAL</p> <p>CNKAFRDTRF LLLLCRWDRK RWRKIPKRP SVHRTPSRQC</p>	
189	3224	Muscarinic acetylcholin e Receptor M2	NM_000739	<p>atgaataact caacaaact cctaaact agcctggctc ttacaagtcc ttataagaca A</p> <p>tttgaagtgg tgtttattgt cctgtggctt ggtatccctca gtttggtag cattatcggg</p> <p>aacatcctag tcatggtttc cattaaagt caccgccacc tccagaccgt caacaattac</p> <p>ttttattca gcttggcctg tctgacatt atcataggtg ttttctccat gaacttgtac</p> <p>accctctaca ctgtgattgg ttactggctt ttgggacctg ttgtgtgtga cctttggcta</p> <p>gccctggact atgtggtcag caatgcctca gttatgaatc tgcctcatc cagctttgac</p> <p>aggtacttct gtgtcacaaa accctgacc taccagatca agcggaccac aaaaatggca</p> <p>ggtatgatga ttgcagctgc ctgggtctc tcttctacc tctgggctcc agccattctc</p> <p>ttctggcagt tcatgttagg ggtgagaact gtggaggtg gggagtgtta cattcagttt</p> <p>ttttccaatg ctgtgtcac ctttggtag gctattgcag ccttctattt gccagtgtac</p> <p>atcatgactg tgctafattg gcacatatcc cgagccagca agagcaggat aaagaaggac</p> <p>aagaaggagc ctgttgccaa ccaagacccc gtttctccaa gtctggtaca aggaaggata</p> <p>gtgaagccaa acaatacaa catgccagc agtgacgatg gcctggagca caacaaaatc</p> <p>cagaatggca agccccccag ggtcctgtg actgaaaact gtgttcagg agaggagaag</p>	Homo sapiens

190	3224	Muscarinic acetylcholin e Receptor M2	NP_000730.1	<p>gagagctcca atgactccac ctcagtcagt gctgttgctt ctaatatgag agatgatgaa  ataaccagg atgaaaacac agtttccact tccctgggccc attccaaaaga tgagaactct  aagcaaacat gcataagaat tggcaccaaag accccaaaaa ggtactcatg taccaccaact  aataccaccg tggagtagt ggggtcttca ggtcagaatg gagatgaaaa gcagaatatt  gtagcccgca agattgtgaa gatgactaag cagcctgcaa aaaagaagcc tctccttcc  cgggaaaaga aagtcaccag gacaatcttg gctattctgt tggctttcat catcactgg  gcccataca atgtcatggt gctcattaac acctttgtg cacttgcacat ccccaacact  gtgtggacaa ttggttactg gctttgttac atcaacagca ctatcaaccc tgcctgctat  gcactttgca atgccacctt caagaagacc tttaaacacc ttctcatgtg tcattataag  aacataggcg ctacaaggt a</p>	Homo sapiens
191	3226	Muscarinic acetylcholin e Receptor M4	LG1143	<p>FLFSLACADL IIGVFSMNL TLYTVIGYMP LGPVVCDLWL ALDYVVSNAS VMNLLIISFD  RYFCVTKPLT YPVKRTTKMA GMMIAAAWVL SFILWAPAIL FWQFIVGVRT VEDGECYIQF  FSNAAVTFTG AIAAFYLPVI IMTVLYWHIS RASKSRIKKD KKEPVANQDP VPSLVQGR  VKPNNNNMPS SDDGLEHNI QNGKAPRDPV TENCVOGEEK ESSNDSTSVS AVASNMRRDE  ITQDENTVST SLGHSKDENS KQTCIRIGTK TPKSDSCTPT NTTVEVVGSS QONGDEKQNI  VARKIVMTK QPAKKKPPS REKKVTRTIL AILLAFIITW APYNNVMVLIN TFCAPCIPNT  VWTIGYWL CY INSTINPAC Y ALCNATFCKT FKHLIMCHYK NIGATR</p>	Homo sapiens
192	3226	Muscarinic acetylcholin e Receptor M4	NM_000741	<p>atggccaact tcacacctgt caatggcagc tcgggcaatc agtccgtgag cctgggtcacg A  tcatcatccc acaatcgcta tgagacggtg gaaatggtct tcattgccac agtgacaggc  tccctgagcc tggtagctgt cgtgggcaac atcctggtga tgcgttccat caagggtcaac  aggcagctgc agacagtcaa caactacttc ctcttcagcc tggcgtgtgc tgatctcatc  ataggcgctt tctccatgaa cctctacacc gtgtacatca tcaagggcta ctggccccctg  ggcgccgtgg tctgcgacct gtggctggcc ctggactacg tgggtgagcaa cgcctccgtc  atgaaccttc tcatcatcag ctttgaccgc tacttctgcg tcaccaagcc tctacactac  ctgccccggc gcaccaccaa gatggcagcc ctcatgattg tgcgtgcctg ggtactgtcc  ttcgtgctct ggcgccctgc catctgttct tggcagtttg tgggtggtaa gcggacgggtg  ccgcacaacc actgcttcat ccagttctctg tccaacccag cagtgacctt tggcacagcc  attgtgctct tctacctgcc tgtggtctatc atgacggtgc tgtacatcca catctccctg  gccagtgcga gccgagtcca caagcaccgg cccgagggcc cgaaggagaa gaaagccaag  acgtggcct tctcaagag cccactaatg aagcagagcg tcaagaagcc cgcgccggga  ggccgccccg gaggactgag caatggcaag ctggaggagg cccccccg ccgctgcca</p>	Homo sapiens

Homo  
sapiens

P

NP\_000732.1

Muscarinic  
acetylcholin  
e Receptor  
M4

3226

193

ccgccaccgc gccccgtggc tgataaggac acttccaatg agtccagctc aggcagtgcc  
 acccagaaca ccaaggaacg ccagaccaca gagctgtcca ccacagagc caccactccc  
 gccatgccg cccctccctt gcagcgcg gcctccaacc cagctccag atggtccaag  
 atccagattg tgacgaagca gacaggcaat gagtgtgtga cagccattga gattgtgcct  
 gccagcgcg ctggcatgag cctgcgcg aacgtggccc gcaagttcgc cagcatcgct  
 cgcaaccagg tgcgaagaa gcggcagatg gcggcccgag agcgcaagt gacacgaacg  
 atctttgcca ttctgctagc cttcaccctc acctggagc cctacaacgt catggtccctg  
 gtgaacacct tctgccagag ctgcaccctt gacacgggtg ggtccattgg ctactggctc  
 tgtacgtca acagcaccat caacctgccc tgctatgctc tgtgcaacgc cactttaaa  
 agacacttc ggcacctgct gctgtgccag tatcggaaca tcggcactgc caggtag  
 aagaccttc SGNQSVRLVT SSSHNRVETV EMVFATVTG SLSLTVVGN ILVMSIKVN  
 RQLQTVNNYF LFSIACADLI IGAFSMNLYT VYIKGYWPL GAVVCDLWLA LDYVVSNASV  
 MNLIIISFDR YFCVTKPLTY PARTTKMAG IMIAAAWVLS FVLWAPAILF WQFVVGKRTV  
 PDNHCIFIQL SNAVTFGTA IAAFYLPVVI MTLVLIHISL ASRSRVHKHR PEGPKKKAK  
 TLAFLKSPIM KQSVKKPRPG GRPGLRNGK LEEAPPALP PPPRPVADKD TSNESSGSA  
 TONTKERPAT ELSTTEATP AMPAPPLQPR ALNPASHRWSK IQIVTKQTGN ECVTAIEIVP  
 ATPAGMRPAA NVARKFASIA RNQVRKKRQM AARERKVTRT IFAILLAFIL TWTPYNNMVL  
 VNTFCQSCIP DTVMSIGYWL CYVNSTINPA CYALCNATEK KTFRHLLLCQ YRNIGTAR  
 atggaaggag attcttaaca caatgcaacc accgtcaatg gcacccagc aaatcaccag A  
 cctttggaac gccacaggtt gtgggaagtc atcaccattg cagctgtgac tgctgtggta  
 agcctgatca ccattgtggg caatgtcttg gtcatgatct ccttcaaatg caacagccag  
 ctcaagacag ttaacaacta ttacctgctc agcttagctt gtgcagatct catcattgga  
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Homo  
sapiens

A

NM\_012125

Muscarinic  
Acetylcholin  
e Receptor  
M5

3227

194



195	3227	Muscarinic Acetylcholin e Receptor M5	NP_036257.1	atggtctctgg tttctacctt ctgtgacaa g tgtgtcccag tcacctgtg gcaactgggc tattgggtgt gctactgtca tagcactgtc aacccctctt gctatgccct ctgcaacaga accttcagga agacctttta gatgtgctt ctctgccgat ggaataagaa aaaagtggaa gagaagtgt actggcagg gaacagcaag ctaccctga LKTNNYYLL SLACADLIIG IFSMNLTYTY ILMGRWALGS LACDLWLALD YVASNASVMN LIVISFDRYF SITRPLTYRA KRPKPRAGIM IGLAWLISFI LMAPAILCWQ YLVGKRTVPL DEQIQFLSE PTITFGTAIA AFYIPVSVMT ILYCRIYRET EKRTKDLADL QGSDSVTKAE KRKPAHRALE RSCLRCRPT LAQERNQAS WSSRRRSTST TGKPSQATGP SANWAKAEQL TTCSSYPSSE DEDKPADPV LQVYKSQK ESPGEESAE ETEETFVKA ETEKSDYDTPN YLLSPAAHR PKSQKCVAYK FRLVVKADGN QETNNGCHKV KIMPCFPVA KEPSTKGLNP NPSHQMTKRK RVLVKERKA AOTLSAILLA FIITWTPYNI MVLSTFCDK CVPVTLWHLG YWLCYVNSTV NPICYALCNR TFRKTFKMLL LCRWKKKKVE EKLWQGNK LP ctattgcagt atctttcagc agacttcag aggagtctcg tcttgggctg cccgtgggtg agtgggagg gaggcagaga agaacttcag aggagtctcg tcttgggctg cccgtgggtg agtgggagg tcgggactg cagaccgtg gcgatggcca ctctccagc agcagaaac tggatagacg gggtggagg cgtgggtgca gacgcgtga acctgaccg ctcgctagt gccggggcgg ccacgggggc agttgagact gggtggctgc aactgctgga ccaagctggc aacctctct ctctcccttc cgcgtggga ctgctgtggg ctctccccc gcctccccc cccctgggcca acctaccaa ccagtctgtg cagcgtctc ggcgatcgc gctctggtc cctggcgtatg gtgtggtgtt ggcagtgga gttttggaa atctcatcgt catctggatc atctggccc acaagcgcac gaggactgt accaactact tcttctgaa cctggcttc tccgacgct ccatggccgc cttcaacacg ttggtcaatt tcatctacgc ccttcacatg gagtggctact ttggcgccaa ctactgccg tccagaaact tcttctctat cacagctgtg ttccgacga tctactccat gacggccatt gcgttgaca ggtatatggc tattattgat cccctgaaac ccagactgtc tgctacagca accaagattg tcatgggaag tatttggatt ctacgatttc tacttgcctt cctcagtggt cttattcca aaaccaaagt catgccaggc cgtactctct gctttgtgca atggccagaa ggtcccaaac aacatttcac ttaccatatt atcgtcatta tactgggtgta ctgtttccca ttgctcatca tgggtattac atacaccatt gttggaatta ctctctgggg agagaaatc ccaggagata cctgtgacaa gtatcatgag cagctaaagg ccaaaagaaa ggttgtcaa atgatgatta ttgtgtcat gacatttgc atctgtgctg tgccctatca tatttactt atctcactg caatctatca acaactaat agatggaat acatccagca ggtctacctg gctagctttt ggctggcaat gagctcaacc atgtacaatc ccatcatcta ctgctgtctg aataaaagat ttcgagctgg cttcaagaga gcatctcgct ggtgtccttt catcaaaagt tccagctatg atgagctaga gctcaagacc accaggtttc atccaaacgg gcaaaagcagt atgtacacg tgaccagaat ggagtccatg acagtctgt ttgaccccaa gcatgcagac accaccaggt ccagtcggaa gaaaagagca acgccaagag acccaagttt caatggctgc tctgcaggga attccaaatc tgcctccgc actcaagtt tcataagctc accctatacc tctgtggatg aatattctta attccattc ctgaggtaaa agattagtgt gagaccatca tgggtgcagt ctaggacccc attctctat ttatcagtc tgtcctatat accctctaga aacagaaagc aatttttagg cagctatggt caaattgaga	Homo sapiens
196	3378	Tachykinin Receptor 3	NM_001059	atggtctctgg tttctacctt ctgtgacaa g tgtgtcccag tcacctgtg gcaactgggc tattgggtgt gctactgtca tagcactgtc aacccctctt gctatgccct ctgcaacaga accttcagga agacctttta gatgtgctt ctctgccgat ggaataagaa aaaagtggaa gagaagtgt actggcagg gaacagcaag ctaccctga LKTNNYYLL SLACADLIIG IFSMNLTYTY ILMGRWALGS LACDLWLALD YVASNASVMN LIVISFDRYF SITRPLTYRA KRPKPRAGIM IGLAWLISFI LMAPAILCWQ YLVGKRTVPL DEQIQFLSE PTITFGTAIA AFYIPVSVMT ILYCRIYRET EKRTKDLADL QGSDSVTKAE KRKPAHRALE RSCLRCRPT LAQERNQAS WSSRRRSTST TGKPSQATGP SANWAKAEQL TTCSSYPSSE DEDKPADPV LQVYKSQK ESPGEESAE ETEETFVKA ETEKSDYDTPN YLLSPAAHR PKSQKCVAYK FRLVVKADGN QETNNGCHKV KIMPCFPVA KEPSTKGLNP NPSHQMTKRK RVLVKERKA AOTLSAILLA FIITWTPYNI MVLSTFCDK CVPVTLWHLG YWLCYVNSTV NPICYALCNR TFRKTFKMLL LCRWKKKKVE EKLWQGNK LP ctattgcagt atctttcagc agacttcag aggagtctcg tcttgggctg cccgtgggtg agtgggagg gaggcagaga agaacttcag aggagtctcg tcttgggctg cccgtgggtg agtgggagg tcgggactg cagaccgtg gcgatggcca ctctccagc agcagaaac tggatagacg gggtggagg cgtgggtgca gacgcgtga acctgaccg ctcgctagt gccggggcgg ccacgggggc agttgagact gggtggctgc aactgctgga ccaagctggc aacctctct ctctcccttc cgcgtggga ctgctgtggg ctctccccc gcctccccc cccctgggcca acctaccaa ccagtctgtg cagcgtctc ggcgatcgc gctctggtc cctggcgtatg gtgtggtgtt ggcagtgga gttttggaa atctcatcgt catctggatc atctggccc acaagcgcac gaggactgt accaactact tcttctgaa cctggcttc tccgacgct ccatggccgc cttcaacacg ttggtcaatt tcatctacgc ccttcacatg gagtggctact ttggcgccaa ctactgccg tccagaaact tcttctctat cacagctgtg ttccgacga tctactccat gacggccatt gcgttgaca ggtatatggc tattattgat cccctgaaac ccagactgtc tgctacagca accaagattg tcatgggaag tatttggatt ctacgatttc tacttgcctt cctcagtggt cttattcca aaaccaaagt catgccaggc cgtactctct gctttgtgca atggccagaa ggtcccaaac aacatttcac ttaccatatt atcgtcatta tactgggtgta ctgtttccca ttgctcatca tgggtattac atacaccatt gttggaatta ctctctgggg agagaaatc ccaggagata cctgtgacaa gtatcatgag cagctaaagg ccaaaagaaa ggttgtcaa atgatgatta ttgtgtcat gacatttgc atctgtgctg tgccctatca tatttactt atctcactg caatctatca acaactaat agatggaat acatccagca ggtctacctg gctagctttt ggctggcaat gagctcaacc atgtacaatc ccatcatcta ctgctgtctg aataaaagat ttcgagctgg cttcaagaga gcatctcgct ggtgtccttt catcaaaagt tccagctatg atgagctaga gctcaagacc accaggtttc atccaaacgg gcaaaagcagt atgtacacg tgaccagaat ggagtccatg acagtctgt ttgaccccaa gcatgcagac accaccaggt ccagtcggaa gaaaagagca acgccaagag acccaagttt caatggctgc tctgcaggga attccaaatc tgcctccgc actcaagtt tcataagctc accctatacc tctgtggatg aatattctta attccattc ctgaggtaaa agattagtgt gagaccatca tgggtgcagt ctaggacccc attctctat ttatcagtc tgtcctatat accctctaga aacagaaagc aatttttagg cagctatggt caaattgaga	Homo sapiens

197	3378	Tachykinin Receptor 3	NP_001050.1	aaggtagtgatg ataaatgtga caaagacact ataacaatgt tagctccac ccaaaataaa atgggcttta aattt MATLPAAETW IDGGGVGAD AVNLASLAA GAATGAVETG WLQLLDQAGN LSSSPSALGL P PVASPAEQP WANLNQFVQ PSWRIALWSL AYGVVAVAV LGNLIVII LAHKMRMTVT NYFLVNLAFS DASMAAFNTL VNFYIALHSE WYFGANYCRF QNEFFITAVF ASIYSMTALA VDRYMAIIDP LKPRLSATAT KIVIGSIWIL AFLAFPOCL YSKTKVMPGR TLCFVQWPEG PKQHFTYHII VIIIVYCFPL LIMGITYTIV GITLWGEIP GDTCDKYHEQ LKAKRKVVKM MIIVMTFAI CWLPYHIYFI LTAIYQQLNR WKYIQQVYLA SFWLAMSSTM YNPPIYCCLN KRFRAGFKRA FRWCPEFIKVS SYDELELKT RFHPNRQSSM YTVTRMESMT VVFDPNADAT TRSSRKKRAT PRDPSFNGCS RRNSKSASAT SSFISSPYTS VDEYS gtgctgtgag gcttgccgc ggacagtaaa cttgcagggg cgagagggag ggacatcgat A taaacctaaa tctgtggcgt tcagtcctca gggcaccgag cgcgtgaaaa ctccagcga ctctgctgga aaggagatca tgcctcttaa gtctcttcc aacctctcg tgaccaccgg cgcgaatgag agcgttccg ttcccgaggg gtgggaaagg gatttccctgc cggcctcgga cgggaccacc acggagtgg tgatccgctg tgtgatcccg tccctctacc tgcctcatcat caccgtgggc ttgctgggca acatcatgct ggtgaagatc ttcatcacca acagcgccat gaggagcgtc ccaacatct tcatctctaa cctggcgcc ggggacttgc tctgtctgct cacctgcgtc cgggtggag cctgcgcgtc cttcttcgac ggtggatgt ttggcaagg gggctgcaaa ctgacctcg tcatccagct cacttccgtg ggggttccg tgttcaactc cactgccc acgcccagaca ggtacagagc catcgttaac cccatggaca tgcagacgtc aggggcattg ctgcggacct gtgtgaaggc catgggtatc tgggtggtct cctgtgtgct ggcagttccc gaagcgggtg ttccagaagt ggctcgcatc agtagcttgg ataatagcag cttcacagca tgtatcccat accctcaaac agatgaatta catccaaaga ttcattcagt gctcatttct ttggtctatt tctcatacc acttgcatt attagcattt attattatca tattgcaaa accttaatta aaagcgaca caatcttctt ggagaataca atgaacatac caaaaaacag atggaacac ggaacgcct ggctaaaatt gtgcttctt ttgtgggctg tttcatcttc tgttggttc caaacacat cctttacatg tatcggtctt tcaactataa tgagattgat ccatctctag gccacatgat tgtcacctta gttgccggg tctcagttt tggcaattct tgtgtcaac catttgcct ttacctactc agtgaagct tcaggaggca tttcaacagc caactctgct gtgggaggaa gtccctatcaa gagagaggaa ccagctacct actcagctct tcagcgggtg gtatgacatc tctgaaaagc aatgctaaga acatggtgac caattctgtt ttactaaatg ggcacagcat gaagcaggaa atggcaatgt gattttggcc attcaactca ctacctggag agaacttagt aa MPSKSLSNLS VTTGANESGS VPEGWERDFL PASDGTTEL VIRCVIPSLY LLIITVLLG P NIMLVKIFIT NSAMRNVPI FISNLAAGDL LLLTTCVPVD ASRYFFDEWM FGKVGCKLIP VTQLTSVGS VFTLTALSAD RYRAIVNPMQ MQLTSGALLRT CVKAMGIWV SVLLAVPEAV FSEVARISL DNSSFTACIP YPQDELHPK IHSVLFLVY FLIPLAISI YYTHIAKTLI KSAHNLPGY NEHTKKQMET RKRLAKIVLV FVGCFFICWF PNHILMYRS FNYNEIDPSL GHMIVTLVAR VLSFGNSCVN PFALYLLSES FRRHNSQLC CGRKSQERG TSYLLSSSAV RMTSLKSNK NMVTNSVLLN GHSMKQEMAM	Homo sapiens
198	3380	Neuromedin B Receptor	NM_002511	gtgctgtgag gcttgccgc ggacagtaaa cttgcagggg cgagagggag ggacatcgat A taaacctaaa tctgtggcgt tcagtcctca gggcaccgag cgcgtgaaaa ctccagcga ctctgctgga aaggagatca tgcctcttaa gtctcttcc aacctctcg tgaccaccgg cgcgaatgag agcgttccg ttcccgaggg gtgggaaagg gatttccctgc cggcctcgga cgggaccacc acggagtgg tgatccgctg tgtgatcccg tccctctacc tgcctcatcat caccgtgggc ttgctgggca acatcatgct ggtgaagatc ttcatcacca acagcgccat gaggagcgtc ccaacatct tcatctctaa cctggcgcc ggggacttgc tctgtctgct cacctgcgtc cgggtggag cctgcgcgtc cttcttcgac ggtggatgt ttggcaagg gggctgcaaa ctgacctcg tcatccagct cacttccgtg ggggttccg tgttcaactc cactgccc acgcccagaca ggtacagagc catcgttaac cccatggaca tgcagacgtc aggggcattg ctgcggacct gtgtgaaggc catgggtatc tgggtggtct cctgtgtgct ggcagttccc gaagcgggtg ttccagaagt ggctcgcatc agtagcttgg ataatagcag cttcacagca tgtatcccat accctcaaac agatgaatta catccaaaga ttcattcagt gctcatttct ttggtctatt tctcatacc acttgcatt attagcattt attattatca tattgcaaa accttaatta aaagcgaca caatcttctt ggagaataca atgaacatac caaaaaacag atggaacac ggaacgcct ggctaaaatt gtgcttctt ttgtgggctg tttcatcttc tgttggttc caaacacat cctttacatg tatcggtctt tcaactataa tgagattgat ccatctctag gccacatgat tgtcacctta gttgccggg tctcagttt tggcaattct tgtgtcaac catttgcct ttacctactc agtgaagct tcaggaggca tttcaacagc caactctgct gtgggaggaa gtccctatcaa gagagaggaa ccagctacct actcagctct tcagcgggtg gtatgacatc tctgaaaagc aatgctaaga acatggtgac caattctgtt ttactaaatg ggcacagcat gaagcaggaa atggcaatgt gattttggcc attcaactca ctacctggag agaacttagt aa MPSKSLSNLS VTTGANESGS VPEGWERDFL PASDGTTEL VIRCVIPSLY LLIITVLLG P NIMLVKIFIT NSAMRNVPI FISNLAAGDL LLLTTCVPVD ASRYFFDEWM FGKVGCKLIP VTQLTSVGS VFTLTALSAD RYRAIVNPMQ MQLTSGALLRT CVKAMGIWV SVLLAVPEAV FSEVARISL DNSSFTACIP YPQDELHPK IHSVLFLVY FLIPLAISI YYTHIAKTLI KSAHNLPGY NEHTKKQMET RKRLAKIVLV FVGCFFICWF PNHILMYRS FNYNEIDPSL GHMIVTLVAR VLSFGNSCVN PFALYLLSES FRRHNSQLC CGRKSQERG TSYLLSSSAV RMTSLKSNK NMVTNSVLLN GHSMKQEMAM	Homo sapiens
199	3380	Neuromedin B Receptor	NP_002502.1	attcaactca ctacctggag agaacttagt aa MPSKSLSNLS VTTGANESGS VPEGWERDFL PASDGTTEL VIRCVIPSLY LLIITVLLG P NIMLVKIFIT NSAMRNVPI FISNLAAGDL LLLTTCVPVD ASRYFFDEWM FGKVGCKLIP VTQLTSVGS VFTLTALSAD RYRAIVNPMQ MQLTSGALLRT CVKAMGIWV SVLLAVPEAV FSEVARISL DNSSFTACIP YPQDELHPK IHSVLFLVY FLIPLAISI YYTHIAKTLI KSAHNLPGY NEHTKKQMET RKRLAKIVLV FVGCFFICWF PNHILMYRS FNYNEIDPSL GHMIVTLVAR VLSFGNSCVN PFALYLLSES FRRHNSQLC CGRKSQERG TSYLLSSSAV RMTSLKSNK NMVTNSVLLN GHSMKQEMAM	Homo sapiens

200	3404	Neuropeptide Y Receptor Type 2	NM_000910	Homo sapiens
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gaggtcagaa	agaacagtgg	ccccaatgac	tctttcacag	aggctacaa tgtctaaagga
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201	3404	Neuropeptide Y Receptor Type 2	NP_000901.1	<p> ggctcacaag tgaaaactga tttcccatTT taaagaagaa gtgatctaa atggaagcat  ctgctgttta attcctggaa aactggctgg gcagagcctg tgtgaaaata ctggaattca  aagataaggc acaaaaatgg tttacttaac agttggttgg gtagtaggtt gcttatgag  taaaagcaga gagaagtact tttgattatt ttcctggagt gaagaaaact tgaacaagaa  attggtatta tcaaaactt gctgagagac gctgggaaaa taagttagct ttcaaatcac  gttaggacct ggattgagga ggtgtgcagt tgcgtgtccc ctgcttggtt tatgaaaaca  ccactgaaca gaaattttctc caggagacca caggctctcc ttcatcgcct tttgattttt  ttgttcattc tctagacaaa atccatcagg gaatgctgca ggaacgatt gccaaactata  cgaatggctt cgaggagata aactgaaatt tgctatataa ttaatatattt ggcagatgat  aggggaactc ctaaacactc agtgggcaaa ttgttcttaa accaaattgc acgtttggtg  aaagtttctt caactctgaa tcaaaagctg aaattctcag aattacagga aatgcaaaacc  atcattttaat ttctaatttc aagttacatc cgctttatgg agatactatt tagataacaa  gaatacaact tgatactttt attgttatac ctttttgaac atgtatgatt tctgtttgta  tttacctttt taaacagata aatatattttt ttctatttta gtagtagcga atctaattt  aatctaactt tttagagagta tatctcagag aaattccaag cacaccagta tgaccatcct  tatttcagaa atgacaatgc atagaggaaa agtaatatgt gcaaaagcctc cgaagaggat  ggttaagtaa agacttaggt taccagtatc aggccttctg ttttgtatgt aggtagctct  actgcctcct cttaaaacca acaaaaggaa gagagactgg ctgcaaaactt ttagaaggaa  tggtctcgaa taggttctct gggaggaatc cagaggaat agacgtgct gctctgctga  ttgtctccac tatctgttt ttgtctctacc cactaatcca gcctgggagg ctctgggcat  tagcgggaagg cttcaccaca aggagacagg agcgagtatt ccataggcat gcgtctcctag  tggcacgagt ggcttggtc aggatcaaa agtgaaggat tgggaagtca gctatctgga  gagagagaga gattgtgtt tattcgtgtc ccatagcttt cctatcctat cctatcctca  gcttttaacc tgagccagag ctcactacac aggttctctgg ctatcgagtc tgaatctgca  ctactcaact tataaaactgt ctgcagacac ctgttaggga aattgctgat catgggcggc  aggatctgaa ctgcctttac cttctgtttt ggagcacagg gaccgcccag ctagaggagc  accagcgcac tgcgccccag ccctggcgga gggtgcggag gattgttct cgggtgcaatc  ctgctggcgc ttttccgggg ttctgcgcgg atccagctcc ccatctctgc tctacacac  acaaaagaaa acaactctcg atgggaagtt gtggaatttt ctcagcccc acgaggcgcg  gggattctcc agccccggcc ctctcccg cagcctgagg tctccttcgc tgcctgcct  tgctaggagac cgcagtcctt cagccgcagc tgggtctgtc cgccccgctt ttgcccctgc  cttttcccg ggcgatttg gtgaagtcgg cctcaagtc aggaggtctg tcttcgcccg  gccagctctc </p>	<p> VWLILAYCSI P  sapiens </p>
				<p> ILGVIGNSL VILGVVYQAQ GLAVQVSTIT LTVALDRHR CIVVHLESKI SKRISFLIG LAWGISALLA  SPLAIFREYS LIEIIPDFEI VACTERWPGE EKSIVGTVYS LSSLLILYVL PLGIISFSYT  RIWSKLKNHV SPGAANDHYH QRRQKTKML VCVVVFVAVS WLPLHAFOLA VDIDSQVLDL  KEYKLIFTVF HIAMCSTFA NPLLYGWNMS NYRKAFLSAF RCEQRLDAIH SEVSVTFKAK  KNLEVRKNSG PNDSTFTEATN V </p>	



205 3406 Neuropetide NP\_006165.1 Y Receptor Type 5 Homo sapiens

gagttattca ttcatcaaaa aacacagaag aagatatagc aagaagacag catgtgtgtt  
acctgctcca gaaagacctt ctcaagagaa ccactcaga atacttccag aaactttgg  
ctctgtaaga agtcagctct ctcatccag taagtccata ccagggtcc cttctgttct  
tgagataaaa cctgaagaaa attcagatgt tcatgaattg agagtaaaa gttctgttac  
aagaataaaa aagagatctc gaagtgtttt ctacagactg accatactga tattagtatt  
tgctgttagt tggatgccac tacacctttt ccatgtggtg actgatttta atgacaattc  
tatttcaaat aggcatttca agttggtgta ttgcatttgt catttgttg gcattgatgc  
ctgttgtctt aatccaatto tatatgggtt tcttaataat gggattaaag ctgatttagt  
gtcccttata cactgtcttc atatgaata atttcaactg ttt  
MDLEDEYN KTLATENNTA ATRNSDFVW DDYKSSVDDL QYFLIGLYTF VSLLGFMGNL P  
LILMALMKR NQKTVNFI GNIAFSDILV VLFCSPTLT SVLLDQWMFG KVMCHIMPFL  
QCVSVLSTL ILISIAIVRY HMIKHPIINN LTANHGFLI ATWTLGFAL CSPLPVEHSL  
VELQETFGSA LLSSRYLCVE SWPSDSYRIA FTISLLVQY ILPLVCLTVS HTSVCRSISC  
GLSNKENRLE ENEMINLTIL PSKSGPQVK LSGSHKWSYS FIKKHRRYS KKTACVLPAP  
ERPSQENHSR ILPENFGSVR SOLSSSSKEI PGVPTCFEIK PEENS DVHEL RVKRSVTRIK  
KRSRSVFYRL TILLVFAVS WMLHLFHV TDFENDNLIN RHFKLVYCIC HLLGMMSCLL  
NPILYGLNN GIKADLVSLI HCLHM

206 3408 Neurotensin NM\_002531 Receptor Type 1 Homo sapiens

tcaagctgc ccgcgcgcgc cgcagccggg ctggggcgctg tctcggggg cctgggggaa A  
cgcgcggtt ggagatcgga ggcactgga accctggga agcgcagagc cgggagacag  
cccgaggaac caggggtct ggagtagga gccggaagct gggagttccg aggagagcgg  
agcccgagc cggagcccg gggcgccgcg tctgggtctg gcgcttcccg actggagcgc  
gcgcccgtg gtcttcgca cgcgccctcc cctgggctcg cgttcacggtg tccccgcctg  
agacgcgcc actcctgcc gacttccag ccccgaggc gccggacaga gccgcggact  
ccagcgcca ccagcgct caacagctcc gcccgggaa ccccgggcac gccggccgccc  
gaccttcc agcgggcgca ggcggactg gaggagcgc tctggcccc ggccttcggc  
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aacaccgaca tctactcaa agtgcgtggtg accgctgtg acctggcgct cttcgtggtg  
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ctgcagagca cgggtgatta ccactgggc agcctggcg tctccgacct gctcaccctg  
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ggcgacgcg gctgcgcgg ctactactt ctgcgcgac cctgcacctg cgcacggcc  
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aagaccctca tctcccgaag ccgacccaag aagttcata gcgccatctg gctcgcctcg  
gccctgctga cgggtgctat gctgttacc atggcgagc agaaccgag cgcgcagcgc  
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atacaggtca acaccttcat gcttccata tccccatg tggtcatctc ggtcctgaac  
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tgcacggtcg gggcgagca cagcacatc agcatggcca tccagcctgg caggggccag  
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ttcctctatg actctacca ctactctac atggtgacca acgactctt ctacgtcagc

tccaccatca acccatcct gtacaacctc gtctctgcca acttcggcca catcttcctg  
gccaactgg cctgcctctg ccggtgtgtg cggcgaggga ggaagaggcc agccttctcg  
aggaaggccg acagcgtgtc cagcaaccac acccttcca ccaatggccac ccgcgagacg  
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ccgcacagac agagcagccc ccaccggga cccttgatgg ggtcaggca gaggccagcc  
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ccagaacaag agagcgtcc tctccagat aggaagaagg cctctaaaca ggagaaatta  
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gcagctccaa gaaagctccc tgactcgccc cttcaggcct ggcaagctgg gggcccatcg  
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caagcccaaa aggacaaaa atgggctggc ctggaatggc ccagacccc gcctccctc  
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atccaggctc cacagagcac atgactagcc agggccctgg cttaagaagg tgcctaaagc  
ctaagagaag acagtccca gagaaagtgg ccgggaccag ccaggagctg ggagccacag  
gaagcaaaa tcagccttt ctcaaggga ttccctctgc tcagagcagc ctttgcccca  
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tggtcttggg ctgtgttcag ccactttgcc ttctctggac tcagtctcc cgtctgagaa  
atgagagtcg aatgctacag tatctgcat cycttgatc tggctgtga gttgacgggt  
tcttgaacc ccacaaaac cctctccac cacaggaccc ttgggtcac caagaacggg  
gccaggggga gtcaggccta ttgctgca ttcttgcca actttgccc cacaagcctg  
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ctggatgaga ctgtcctgga ggatccacc cggaaacagac agaagcgtgt cctcaggat  
ggtgctctga gagaggcag agtgatgcc cactggcct agaccctgg tagacgtggg  
gtctctggg cgggtctgt ggctgtgact gaagtcggct tcccgtga tgcctgatg  
ctcctatctg tgcacttacc gtaggtaggg acagtgctc atgcaccaca gacacacca

207 NP\_002522.1 Neurotensin Receptor Type 1 Homo sapiens

208 NM\_000913 Opiate Receptor-Like 1 (OPRL1) Homo sapiens

cgacaccta tctcgtatca ctagcttgcc gccaggtcat gatgtggcc cggaagctgg  
 cctcgtgc catgagtcg tcggtcatgg agtcggagc cctcggagc gcccctggg  
 acggcacag cctcacagc caaacgcca ccccactc caccatgc aggtggtgaa  
 acaaaaccc gtgtatctc caataaagt ggcgaaggg cctcgatgg g  
 MRNSSAPFG EPTPAADPFQ RAQAGLEAL LAPGFNASG NASERVLAAP SSELVDNTDI P  
 YSKVLTVAV LALFVVGTVG NTVTAFILAR KKSLSQSLST VHYHLGSLAL SDLLTLLAM  
 PVLYNFIWV HHPWAFGDAG CRGYFLRDA CTYATALNVA SLSVERYLAI CHPFKAKTLM  
 SRSRTKKFIS AIWLASALLT VPMLETMGEQ NRSADGQHAG GLVCTPTIHT ATVKVVIQVN  
 TFMSEIFPMV VISVNTIIA NKLTVMVROA AEQGVCTVG GEHSTFSMAI EPGRVQALRH  
 GVRVLRAVVI AFVVCWLPYH VRRLMFCYIS DEQWTFPLYD FYHYFYMTN ALFYVSSTIN  
 PLYNLVSAN FRHIFLATIA CLCPVWRRR KRPAFSRKAD SVSSNHTLSS NATRETLV  
 cctgctcgc acctgtcgtc gactgccagc cggctgaggg cgggggtctc caccgtggtc A  
 ccagctccca aggaggttgc agaagtaccg tacagagtgg atttgcagg cagtggcatg  
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 ctgtccctcc tgagccccc aaacagctc gtcacccatg tggggctcta cctggccgtg  
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 agcccgaga gcccctgag catccagagc ctgggatggg cttttccctg tggggccagg  
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 gctgtttgca tggcagggt ctagcctcct ttagcctctt gacgtctcct caggggcagct  
 ggacaggctt ggcacggccc gggaagtga gcaaggcagct tttctttggg gtgggacttg



209	3452	Opiate Receptor-Like 1 (OPRL1)	NP_000904.1	MEPLFPAPFW VCVGGLLGNC ALCKTVIAID VGVFVAIMGS RLRGVRLLSG LRFCTALGVV KTSETVPRPA	EVYIGSHLQG LVMYVILRHT YNNMFTSTFT AQVEDEIEIC SREKDRNLRR NSCLNPILYA FLDENFKACF	NLSLLSPNHS KMKTATNIYI LTAMSVDRYV LVEIPTPDQY ITRLVLVVA VFVGCWTPVQ RKFCASALR	LLPPHLLINA ENLALADTLV AICHPIRALD WGPVFAICIF VFVLAQGLGV RDVQVSDRVR STAKDVALAC	Homo sapiens
210	3513	Ocular Albinism 1 (Nettleship-Falls) (OA1)	NM_000273	atgacccagg atggcctccc gtgctgagct ttggcgctgg gcgacgtccc ggctgcctgg agcgtctcgg atgtggatcc gcttatctgg gcgtggggcc gtgtccagg cccttgctgc gcctctttac gtgatcaaga atcatcaatg ttgaaacctg gccagggat cagtcctcca caccatccc gggcagactt gaaattcaca	caggccggcg cgcgcctagg tccagccggc gcttctgca gcgcggcctc gtatggtgat atatgaacca agctgttgta tgatccggag tggccacctt gtgagcgggg tggttctcgt ttaaagggaag tccgattttt aaagcctttt tcagaactgc ttctcttgct ggaaggagat cactgatgcc ctgacgaagc ctgcaagtga	gggtcctggc gaccttctgc ggccttccac gctgctgcat ggtcgcctc cgggtccacc cacggaaatt cagtgccctg atcggcagg gctctgtgtg cctggaccac ggcgaacccc acaaggcatt caaaatcatg attctatctt agccaagacc tttgcccttc ccagtgggaa ccatgaaaac cctgctccc cctgagcatg atcctgcaac aaaaatgagg gtgacccctgc	acacccgagc tgccccacgc cgctctgccc ggccgcgggc ctgcgcctg gtgtggttag tgccctgctg ttctgtgctg ctgagcacca gagggagccc gccatcccc atcctgttcc tacacggaga cagagaggag ctgggtttta agatatcaaa cagatatcaa acatgggaat tactgctgga tcaactgacca cctcggtcgc ggaaggtgtc gttctgatgc gtgacccctgc	aacacagccc cacgcagctc cgggctccgc cgggctccgc cgggctccccc cgacttctc tttgtttgac gggagtgcg tgagatggat tcacatcatg ctacctctc ctacctctc catgtacctg aaaagacagt gactgcagtg gatggagacc gttctgttg gtgtcgaat tggaggttct cctgaatcca cctgggtttt cctgagtcag cctgggtttt tgagggggt tcaagtgggt cagacaatt gtcctcgaac

Homo  
sapiens

P

NP\_000264.1

Ocular

3513

211

Albinism 1  
(Nettleship-  
Falls) (OA1)

catggagacc tatgaagggg atgtgctggg ggtccagacc ccatttctt cagactcaac  
aattctgtt ctttagaact gtgttctcac cttccaaca ctgcactgcc gaagtgtagc  
ggccccaaa ccttgctctc atcaccagct agagctctt cccgaagggc ctttaggata  
ggagaaaggg ttcatgcaca cactgttgag aatggaagag cccctccag accactctac  
agctgctcta gcttagtg cactaggaa gttttctgag gctggctgta aagtaagtgt  
aaggtccaca tccctgggga agtagttaaa taaaatagtt atgactg  
MTQAGRRGPG TPEPRPTQP MASPRLGTF CPTDRDATQL VLSFQPRAFH ALCLSGGGLR  
LALGLLQLLP GRRPAGPGSP ATSPASVRI LRAAAACDLL GCLGMVIRST VWLGFNFVD  
SVSDMNHTEI WPAAFVCVSA MWIQLLYSAC FWLFCVAVD AYLVIRRSAG LSTILLYHIM  
AWGLATLLCV EGAMLYPS VSRCEGLDH AIPHYVTMYL PLLLVLVANP ILFQKTVTAV  
ASLLKGRQGI YTENERMGA VIKIRFFKIM LVLIICWLSN IINESLLFYL EMQTDINGGS  
LKPVRTAAKT TWFIMGILNP AQGFLLSLAF YGWTGCSLGF QSPRKEIQWE SLTTSAAEGA  
HPSPLMPHEN PASGKVSQVG GQTSDEALSM LSEGSDASTI EIHTASESCN KNEGDPALPT  
HGDL

Homo  
sapiens

A

NM\_014879

UDP-glucose  
Receptor  
(KIAA0001)

3544

212

gaacagtgtt acctgggag ctacaatgag aggtatttca aaatgagtga agcatgactc  
tcacagatga aggcctagac gcagatctt taatggaaaa acacttgggc cacttcaaga  
cgacaaacgc tcaactggca aaacaccttc actgaaaaa gacctcatat tatgcaaaaa  
aaatcttaag aggcctctgc cttcagaagt tacaagatga tcaattcaac ctccacacag  
cctccagatg aatcctgctc tcagaacctc ctgatactc agcagatcat tccgtgtctg  
tactgtatgg tcttcattgc gggaaatccta ctcaatggag tgtcaggatg gatattctt  
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attgtgttct ttgggctcat cagctttgac aaacttctgt cagtgtatgt atggatgctc  
acttctttca tccagtcatg gattacagc aaacttctgt cagtgtatgt ggaggttaca  
atgctctctc ttgctgttcc aaatattatt ctaccaacc agagtgttag ggaggttaca  
caataaaaat gtatagaact gaaaagtga ctgggacgga agtggcaca agcatcaaac  
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aagaaatcta gccgaacat attcagcatc gtgtttgtgt tttttgtctg ttttgtacct  
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aatacaacac ttgaaagcac agatactttg tgagttccta cctcttcca aagaaagacc  
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ctttctattc tctattaata aaaaattaat acatacaatt attcaattct attatattaa  
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213	3544	UDP-glucose Receptor (KIAA0001)	NP_055694.1	<p>tctagtatgt aattgttttc aaactgtcc taaagacta acttgaagc aggcacagtt</p> <p>tgatgaagg ctagagagct gtttgaata aaagtcagg ttttttccct gatttgaaga</p> <p>agcaggaaa gctgacacc agacaatcac ttaagaaacc ccttatgat gatttcatg</p> <p>gcactgcaa ggaagaggaa tattaattgt atacttagca agaaaatttt tttttctga</p> <p>tagcacttg agtatattag atacatgcta aatatgttt ctacaagac ttacttcatt</p> <p>taatgagcct ggggttctgg tgtagaata tttttaagta ggtttactg agaaaaacta</p> <p>aatattggca tacgttatca gcaacttccc ctgttcaata gtatgggaaa aataagatga</p> <p>ctgggaaaaa gacacacca caccgtagaa catatatata tctactggc aatgggaaa</p> <p>gagaccattt tcttagaaa caataaaact tgattttttt aaatctaaa ttacattaa</p> <p>tgagtgaata ataacacata aaatgaaaat tcacacatca catttttctg gaaaacagac</p> <p>ggattttact tctggagaca tggcatacgg ttactgactt atgagctacc aaaactaaat</p> <p>tcttttctctg ctattaaactg gctagaagac attcatctat ttttcaaatg ttctttcaaa</p> <p>acatttttat aagtaaatgtt tgtatctatt tcatgcttta ctgtctatat actaataaag</p> <p>aaatgtttta atactg</p>	Homo sapiens
214	3582	Oxytocin Receptor	NM_000916	<p>MINSTSTQPP DESCSQNLLI TQIIPVLYC MVFIAGILLN GVSGWIFFYV PSSKSFIYLY P</p> <p>KNIVIADEV SLTFPFKILG DSGLPWQLN VFVCRVSAVL FYVNMVYSIV FFLISFDRI</p> <p>YKIVKPLWTS FIQSVSYSLK LSVIVWMLML LIAVPNIILT NQSVREVTQI KCIELKSELG</p> <p>RKWHKASNYI FVAIFWIVFL LLIVFYTAIT KKIFKSHLKS SRNSTSVKKK SSRNIFSIVF</p> <p>VFFVCFVPYH IARIPYTKSQ TEAHYSCQSK EILRYMKEFT LLSAANVCL DPLIYFFLCQ</p> <p>PFREILCKKL HIPLKAQNDL DISRIKRGNT TLESTDTL</p> <p>tgttaaagct ctgggaccaa cgtcggcga accagctccg ctccggagg gtctgcgcg A</p> <p>ctggcctcgc cgcgcccta ggcacccgt gcgatatgtc agctcagcc ccaggcacag</p> <p>cgccgcatcc agacccgtc cgcgcgcga gctcggagg gctcctcgc tcgctcctg</p> <p>taccatcca gcgaccgac agcctgcgc gaggggattc caaccaggc tccagtga</p> <p>gacctcagct tagcatcaca ttaggtgcag ccggcaggcc atcccaactc gggccgggag</p> <p>cgcacgcgtc actggggccg tcagtcgccc tgcaacttcc ccggggggag tcaactttag</p> <p>gttcgcctgc gactcgggt cagtggagc cgtgaacat ccgagggaac tggcacgctg</p> <p>ggggctcttg gcttggtgccc gtagaggat tcccgtcat ttgcagtggc tcaggaggag</p> <p>gtggacccag cagatccgtc cgtggagtct ccaggagtgg agccccggc gccctacac</p> <p>cctccgacac gccgatccg gccacgccc gccaagccgt aaagggtcgc aagggccggg</p> <p>cgcaaccgtc ccgccagggt catggagggc gcgctcgcag ccaactggag cgccgaggca</p> <p>gccaacgcca gcgccgccc gccggggccc gagggaacc gcaccgccc acccccgcg</p> <p>cgcaacgagg ccttggcgcg cgtggaggtg gcggtgctgt gtctcatcct gctcctggcg</p> <p>ctgagcgggg acgctgtgt gctgctggcg cgtgcgacca cagtcgagaa gcactcgcg</p> <p>ctctctctct tcatgaagca cctaagcat gccgacctg tgggtgcagt gtttcaggtg</p> <p>ctgcccagct tgctgtggga catcacctc cgcttctacg gggccgacct gctgtgccg</p> <p>ctggtcaagt actgcaggt ggtgggcatg ttgcctcca cctacctgct gctgctcatg</p> <p>tccctggacc gctgcctggc catctgccag ccgctgcgct cgtgcgcgc cgccaccgac</p> <p>cgctgggag tgctcgccac gtggctcggc tgcctgggtg ccagcgccc gcagggtgac</p> <p>atctctctc tgcgcgaggt ggctgacggc gtcttcgact gctgggcccgt cttcatccag</p> <p>ccctgggggac ccaaggccta catcacatgg atcacgctag ctgtctacat cgtgcgggtc</p>	Homo sapiens

atcgtgctcg ctacctgcta cggccttata agcttcaaga tctggcagaa cttgcggctc  
aagaccgctg cagcggcggc ggccgagggc ccagagctgc cggcggctgg cgatgggggg  
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tggctactaa gcacatgaaa aatactcaac attattattc attagggaaa tgcaagtcaa  
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215	3582	Oxytocin Receptor	NP_000907.1	<p> aagcagtgctc ggtgaggatg tagagaaact ggtagaaatt taaattggtg gtagggaatgt  aaatggtgca cctgctttga aaaacagttt ggcagtagctt caaaagtta aacgtagagt  gaccatatga ccagggaatg ccaatcctag gtatttacc aagagaaatg aaaacgtaca  tacacacaaa aacttgtaga ccaatgttca tagcaacatt atttgaata gccaaaaagt  ggaacaacc caaatgtcta ccaatgatg aatgggaat aaatgtggt ctgtccacgc  aatggaacat tattagactc taaaaagaaa tgaagtactc acacatgcca caacatggat  gagccttgaa aacttgctaa gtgaaagaag ccaggtgcaa aagccacat attgtctgac  tgcataggaa tgcaatgtct aaaatggacg aatctatata gagtgaatat agattagcgt  ttgccagggc ctggaggctg tgagagatga ggcagtagta ctaagggttt ggggtttctt  tttcgggtga tgaataatgt cgaataatgt ggtgattgtg cactgatttg agaattgact  aaaaaccaat gaactttaaa aaataaaaaa aaacaaa  MEGALANWS AEANASAP PGAENRTAG PPRNEALAR VEVAVLCLIL LLALSGNACV P  LLALRTTRQK HSRLEFFMKH LSIADLVVAV FQVLPOLLWD ITFRFYGPD L LRLVKYLQV  VGMFASTYLL LLMSLDRLA ICOPRLSLRR RTDRLAVLAT WLGLVASAP QVHIFSLREV  ADGVFDCWAV FIQPWGPKAY ITWITLAVYI VPVIVLATCY GLISFKIQWQ LRLKTAASAA  AEAPEGAAAG DGRVALARV SSVKLISKAK IRTVKMTFII VLAFIVCWTP FFFVQMWVSW  DANAPKEASA FIIVMLLASL NSCNPWIMY LFTGHLFHEL VQFLCCSAS YLKGRRLLGET  SASKKNSSS FVLSHRSSQ RSCSQPSTA  cggcacgagg caccocgaga ggagaagcgc agcgagtggt cgagaggagc cccttggtggc A  agcagcacta cctgcccaga aaaatgctgg aggtggggc tgccccccag cctggggacc  tgtttttcct gttcccgca gattccctg cagcccggtc caggtccagg cgtgtgcat  catgagtgag gaaccgctgc aggcgctgag cactctgacc tggagagcag gggctggtca  ggcgatggc agcagacctg ggcctctgga atgagaccat caatggacc tgggatgggg  atgagctggg ctacagtggc cgttcaacg agactgtcga gtacgtgctg ctgcctgtgt  cctacggcgt ggtgtgctg cttggctgt gtctgaacgc cgtggcgctc tacatcttct  tgtgccgct caagacctg aatgcgtcca ccacatatat gttccacctg gctgtgtctg  atgcaactgta tgcggcctcc ctgccgctgc tggcttatta ctacgcccgc ggcgaccact  ggcccttcag caggtgtctc tgcaagctgg tgcgttctct cttctacacc aactttact  gcagcactc cttctcacc tgcacagcg tgcacgggtg tctggcgctc ttacgacctc  tgcgtccct gcgtggggc cggcccgct acgctgcgcg ggtggccggg gccgtgtggg  tgttggtgct ggcctgccag gcccccgct tctactttgt caccaccagc ggcgcgggg  ggcggtaac ctgccacgac acctcgac cagagctctt cagccgcttc gtagcctaca  gctcagtcac gctgggctg cttctcgcg tgcctttgc cgtcactctt gctgtttacg  tgtcactggc tggcgactg ctaaaagcag cctacgggac ctcggcggc ctccttaggg  ccaagcgcaa gtccgtgccc acctcgccg tgggtgtggc tgtcttgc cctgtctcc  tgccattcca cgtcaccgc acctctact actccttccg ctgcctggac ctcagctgcc  acacctcaa cgcctacac atggcctaca aggttaccg gccgctggc agtgctaaca  gttgcttga cccgtgctc tacttctgg ctgggcagag gctcgtacgc ttgcccag  atgccaagcc acctactgc ccagccctg ccaccccgcc tcgcccagc ctggccctgc  gcagatccga cagaactgac atgcagagga taggagatgt gttgggcagc agtgaggact  tcaggcggac agagtccac cgggctggtg gcgagaacac taaggacatt cggctgtagg </p>	Homo sapiens
216	3589	Purinergic Receptor P2Y, G- protein coupled, 2 (P2RY2)	NM_002564	cggcacgagg caccocgaga ggagaagcgc agcgagtggt cgagaggagc cccttggtggc A agcagcacta cctgcccaga aaaatgctgg aggtggggc tgccccccag cctggggacc tgtttttcct gttcccgca gattccctg cagcccggtc caggtccagg cgtgtgcat catgagtgag gaaccgctgc aggcgctgag cactctgacc tggagagcag gggctggtca ggcgatggc agcagacctg ggcctctgga atgagaccat caatggacc tgggatgggg atgagctggg ctacagtggc cgttcaacg agactgtcga gtacgtgctg ctgcctgtgt cctacggcgt ggtgtgctg cttggctgt gtctgaacgc cgtggcgctc tacatcttct tgtgccgct caagacctg aatgcgtcca ccacatatat gttccacctg gctgtgtctg atgcaactgta tgcggcctcc ctgccgctgc tggcttatta ctacgcccgc ggcgaccact ggcccttcag caggtgtctc tgcaagctgg tgcgttctct cttctacacc aactttact gcagcactc cttctcacc tgcacagcg tgcacgggtg tctggcgctc ttacgacctc tgcgtccct gcgtggggc cggcccgct acgctgcgcg ggtggccggg gccgtgtggg tgttggtgct ggcctgccag gcccccgct tctactttgt caccaccagc ggcgcgggg ggcggtaac ctgccacgac acctcgac cagagctctt cagccgcttc gtagcctaca gctcagtcac gctgggctg cttctcgcg tgcctttgc cgtcactctt gctgtttacg tgtcactggc tggcgactg ctaaaagcag cctacgggac ctcggcggc ctccttaggg ccaagcgcaa gtccgtgccc acctcgccg tgggtgtggc tgtcttgc cctgtctcc tgccattcca cgtcaccgc acctctact actccttccg ctgcctggac ctcagctgcc acacctcaa cgcctacac atggcctaca aggttaccg gccgctggc agtgctaaca gttgcttga cccgtgctc tacttctgg ctgggcagag gctcgtacgc ttgcccag atgccaagcc acctactgc ccagccctg ccaccccgcc tcgcccagc ctggccctgc gcagatccga cagaactgac atgcagagga taggagatgt gttgggcagc agtgaggact tcaggcggac agagtccac cgggctggtg gcgagaacac taaggacatt cggctgtagg	Homo sapiens

Homo  
sapiens

P

NP\_002555.1

Purinerbic  
Receptor  
P2Y, G-  
protein  
coupled, 2  
(P2RY2)

3589

217

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ctccgtcatt tgacaggggc taggatatt cactctgtgg tccagagtca actgttccca  
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ILFLTICSVH RCLGVLRPLR SLRWGRARYA RRVAGAVWVL VLACQAPVLY FVTTTSARGGR  
VTCHDTSAPE LFSRFVAYSS VMLGLLEAVP FAVILVCYVL MARRLLKPAY GTSGGLPRAK  
RKSVRTIAV LAFVFLCFLP FHVTRTLVYS FRSLDLSCHT LNAINMAYKV TRPLASANSC  
LDPVLYFLAG QRLVRFARDA KPPTGPSPAT PARRRLGLRR SDRTDMQRIG DVLGSSEDFR  
RTESTPAGSE NTKDIRL

Homo  
sapiens

A

NM\_002563

Purinerbic  
Receptor  
P2Y1

3595

218

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219	3595	Puriner Receptor P2Y1	NP_002554.1	<p> ttaaataaat aatagaagta gaaatgcccc catccacact tagcttggtt gggtttgctt  tcacagtctc tcttcctctt gactagaagt atgtataata aaacaatact acctagttaa  acatttactt tctcttttgc ctttaaaatg tgcaggcttt ttgtttttaa gtgtgtgtgc  acatgagtac tgggctgtt ttgtatatta gtaatttctc taagaaaaact agccccctgc  aacttgagtt tgtggtttat ctagccttta ttgtttttt aaataccaca gtaggaataa  aaaatctata ttctcagaaa tatctagcat ggtatataac aaacacactaa actcatcagt  tcatccggca tcagatcaat ggtctcttga gcggggtgtt ttttccagt tcttataagc  atagatgata gttgactgag ttcttttagg gcattgaata gacaaagtaa gctaataaat  ttaaaagcct gaaaagtgat tgttttccag ttatttcttg aaaaggtctc attatatatt  gggtgctaaa tgtttgatgg gaaaagcctg catatatatt cgtactggta aaatgcattc  aaaaataata aagtgcattg attttccttg taaacacact gagctctctt agacatcttg  tgataaagag catttacttg cccactgct gtgcaatgcc ttaggacttt gtttgtgttc  caggacaagt gttcactcac atctgtaaaa acaattttaa gaattgcaaa taaattacag  accaaagatt gactaaagtc aaataactgt tagtaagtgg aagatatatt gacaggagga  cagtatttca gaaaaggaga gttgacagt catccacaag ccatagcctc caagtatact  ctcaaatgta tgaagcaact ggggtgggca gaagacattt tagaatgagg gcctttagtt  taaattaaag tcatggtgga gaagactctt gcttcacca agtgtttgaa aacacaaaat  acgatataaa aaaaaaaa aaa  MTEVLPAPV NGTDAFLAG PGSSWGNSTV ASTAAVSSSF KCALTKTGFQ FYLPAVYIL P  VFIIIGLNS VAIWMEVFHM KPWSGISVYM FNLAADFLY VLTLPALIFY YFNKTDWIFG  DAMCKLQRFI FHNLYGSIL FLCISAHRY SGWVPLKSL GRLKKNAIC ISVLWLVIV  VAISPILFYS GTGVRKNKTI TCYDFTSDEY LRSYFIYSMC TTVAMFCVPL VLIIGCYGLI  VRALIYKDLN NSPLRRKSIY LVIIVLTVEA VSIYPFHVMK TMNLRLARLDF QTPAMCAFND  RVYATYQVTR GLASLNSCVD PIIYFLAGDT FRRRLSRATR KASRRSEANL QSKSEDMTLN  ILPEFKQNGD TSL </p>	Homo sapiens
220	3596	Puriner Receptor P2Y5	NM_005767	<p> ctgatgaaag tgcttccaaa ctgaaaaattg gacgtgcctt tacgatggta agcgttaaca A  gctccactg cttctataat gactccttta agtacacttt gtatgggtgc atgttcagca  tggtgtttgt gcttgggta gtatccaatt gtgttgccat atacattttc atctgcgtcc  tcaaagtcgg aatgaaact acaacttaca tgattaaactt ggcaatgtca gacttgcttt  ttgtttttac ttacccttc aggatttttt acttcacaa acggaattgg ccatttggag  atttactttg taagatttct gtgatgctgt ttatatacaa catgtacgga agcattctgt  tcttaacctg tattagtga gatcgatttc tggcaattgt ctaccattt aagtcacaga  ctctaagaac caaaagaaat gcaaagattg ttgactggtt actgtgatcg  gaggaagtgc accgcctgt ttgttctagt ctaccactc tcagggtaac aatgcctcag  aagcctgctt tgaataatttt ccagaagcca atctcctca aggattgtaa  ttttcatcga aatagtggga tttttttatt ctctaatttt aaatgtaact tgttctagta  tggtgctaaa aactttaacc aaaccagtta cattaagttag aagcaaaaata aacaaaacta  agggttttaa aatgattttt gtacatttga tcatattctg ttctgtttt gttccttaca  atatcaatct tattttatat tctcttgtga gaacacaaac atttgttaaat tgcctcagtag  tggcagcagt aaggacaatg taccacaaatc ctctctgtat tgctgtttcc aactgttgtt  ttgaccctat agtttactac ttacatcgg acacaattca gaattcaata aaatgaaaa </p>	Homo sapiens

221	3596	Puriner Receptor P2Y5	NP_005758.1	actggtctgt caggagaagt gacttcagat tctctgaagt tcattggtgca gagaatttta ttcagcataa cctacagacc ttaaaaagta agatatttga caatgaatct gctgcctgaa ataaaacat taggactcac tgggacagaa cttcaag MVSNNSSHC FYNDFEYTL GCMFMSVFL GLVSNCAIY IFICVLKVRN ETTTYMINLA P MSDLLFVFTL PFRIFYFTTR NWPFGLLCK ISVLMFYTNM YGSILFLTCI SVDFELAIYV sapiens PFKSKTLRTK NNAKIVCTGV WLTVIGGSAP AVFVQSTHSQ GNNASEACFE NFPEATWKTY LSRIVIFIEI VGFFIPLIN VTCSSMLKT LTKPVTLSRS KINKTKVLKM IFVHLIIFCF CFVPYNINLI LYSLVRTQTF VNCSSVAAVR TMYPTLCIA VSNCCFDPV YYFTSDTIQN SIKMNWSVR RSDRFSEVH GAENFIQHL QTLKSKIFDN ESAA	Homo sapiens
222	3597	Puriner Receptor P2Y6	NM_004154	aaggacagag gagggccct tcctgtcagc tggctggag cagagggtggc tttgtctttt A cggaagaact gttctgtgg aatttgtgt tatttcccat caagatcaa ggacctgctc tggggctacc tcaggggccc acaggatgag gggctgggtt tcagatgagt tttctgctg cctgtcatct ggatagtgc taataatttg caaactgctt tctgtcagt gcttgcctc ttcttcata tgacacgga cagtttcagg cacagaactg actggcagca ggggctgctc tgccagaaca ttgcacgga cagtttcagg cacagaactg actggcagca ggggctgctc cacagagtgg aattgtctc agcacttcac ggactgcaag cgaggcactt gctaaactct ggataacaag acctctgcca gaagaacct ggctttggaa ggcggagtgc aggtgagga gatgggtgc gtcctcagtg agccctgccc tccctgaaca taggaaaccc acctgggcag ccatggaatg ggacaaatgg acaggccagg ctctgggctt gccacccacc acctgtgtct accgcagaa cttcaagcaa ctgctgtgc cactgtgta ttcggcgggtg ctggcggctg gcctgcccgt gaacatctgt gtcattacc agatctgcac gtcggccgg gctcctgccc gcacggccgt gtacacccca aacctgtctc tggctgacct gctatatgcc tgcctcctgc ccctgtcat ctacaaactat gccaaagtg atcactggcc ctttggcgac ttcgctgccc gcctgggtcc gctctcttc tatgccaacc tgcacggcag cactctcttc ctacactgca tcagcttcca gcgtacctg ggcactgccc acctgtggc cccctggcac aaagtgggg gccgcccggc tgcctggcta gtgtgtgtg ccgtgtggc ggccgtgaca acccagtgcc tgccacagc catcttgcct gccacaggca tccagcgtaa ccgcaactgc tgcctatgacc tcagcccgc tgccttggcc acctactata tgcctatgg catggctctc actgtcatcg gcttctctgt gcccttctgt gccctgtgtg cctgtactg tctcctggcc tgcgcctgt gccgcccagg tggcccggca ggcctgtgtg ccaggagcg gctggcaag gcggcccga tggcctgtgt ggtgctgtc gcccttgcca tcagcttctt gccctttcac atcaccaga cagctacct ggcagtgcgc tcgacgcgg gcgtccctg cactgtattg gaggcctttg cagcggccta caaaggcac cggccgtttg ccagtgcac cagcgtgctg gacccatcc tcttctactt caccagaag aagtccgcc ggcagaccac tagctctta cagaaactca cagccaaatg gcagaggcag ggtcgtgtg tcttccaggt cctgggcagc cttcatattt gccattgtgt ccggggcacc aggagcccca ccaaccccaa accatgcgga gaattagagt tcagctcagc tgggcatgga gttaaatcc ctacacggac ccagaagctc accaaaaact atttctcag cccctctctt gcccagacc ctgtgggcat ggagatggac agacctgggc ctggctcttg agaggtccca gtcagccatg gagagctggg gaaacacat taaggctgctc acaaaaatac agtgtgacgt gtactgtcaa aa	Homo sapiens



223	3597	Purinergic Receptor P2Y6	NP_004145.1	MEWDNGTGOA LGLPPTTCVY RENFKQLLLP PVYSAVLAAG LPLNICVITQ ICTSRRALTR P TAVYTLNLAL ADLLYACSLP LLIYNYAQGD HWPEGDFACR LVRFIFYANL HGSILFLTCI SFQRYLGICH PLAPWHKRG RRAAWLVCVA VWLAVTTQCL PTAIFAATGI QNRNRTVCYDL SPPALATHYM PYGMALTIVG FLPLFAALLA CYCLLACRLC RQDGPAPVA QERRGKAARM AVVAAAFAI SFLPFHITKT AYLA VRSTPG VPCTVLEAFA AAYKGRPFA SANSVLDPII FYFTQKKFRR RPHELLQKLT AKWQRQGR	Homo sapiens
224	3599	G Protein- Coupled Receptor 23 (GPR23)	NM_005296	A ccctgcagc cagcaggcct cctgaaaaa aagtccatgg gtgacagaag attcattgac ttccaattcc aagattcaaa ttcaagcctc agaccagggt tgggcaatgc tactgccaat aatacttgca ttgttgatga ttcccttcaag tataatctca atggtgctgt ctacagtgtt gtattcatct tgggtctgat aaccaacagt gtctctctgt ttgtctctgt ttccgcatg aaaaatgagaa gtgagactgc tatttttattc accaatctag ctgtctctga ttgtcttttt gtctgtacac taccttttaa aatatttttac aacttcaacc gcactggcc ttgtggtgac accctctgca agatctctgg aactgcattc cttaccaca tctatgggag catgctcttt ctacactgta ttagtgtgga tcgtttcctg gccattgtct atccttttgc atctgtact attaggacta ggagggaattc tgccattgtg tgtgtggtg tctggatcct agtctcagt ggcggtattt cagcctctt gttttccacc actaatgtca acaatgcaac caccacctgc ttggaaggct tctccaaaog tgtctggaag acttatttat ccaagatcac aatattttat gaagttgttg ggtttatcat tctcttaata ttgaatgtct ctgtctctc ttgtgtgctg agaactcttc gcaagcctgc tactctgtct caaatggga ccaataagaa aaagtactg aaatgatca cagtacatat ggcagtcctt gtggtatgct ttgtacccta caactctgtc ctctcttgt atgacctgtt gcgctcccaa gtattacta attgcttttt ggaagattt gcaagatca tgtaccat cactttgtgc cttgcaactc tgaactgttg ttgtgacct ttcatctatt acttaccct tgaatccttt cagaagtctt tctacatcaa tgcacacatc agaatggagt cctgttttaa gactgaaaca cctttgacca caagccttc ccttcagct attcaagggt aagtgtgta tcaaacaca aataatggtg gtgaattaat gctagaatcc accttttagg tatgagaaat gtgttcaggt ccagatatgg ttctcctat aattttcct atgctataaa ctaaagattt gaagctaatg atactgagaa taatgcacca aatccagtc aatacatttg ttggaaggta tactgtagag tttttattgc tgtttgttc agtaattata ggtcaaatct aattacaaca accaagatgg attgccaac tcttctgctt ggttgaatt tcatgtatc gcattatcca ggtggctagt ggcatttgat aatatagaga tgaattgaa actttcaaaa aggtatttct attccaatga tatttggtaa ttaggttggg cctataata tagaacaat tcagggtatt ttaaaaaatt gtgttactac tgatatatgc tagttttatt ttattttttt ggactgtcat tgagtttatt ttagcacaag aatattttta gcctaacatt attaataaga aatgtgtcaa atttttaaca ttggtaaaa atgttatgtg cattttgaa acagaaaaa aattgcgttg gcatgtacgt gggtgggaag aaaaagaaa ttaacaggat ttacacaatt ataatcacca gcagtgtgag tttaaaaaa ttcgttgttt ttacaccaa ttaaaatttt catgtcaaac ttcaagcca gaaagctgct aaatcgtgt ctggcaggta aaagctggaa aattacttaa aacaggaaa tgtcaataaa aaaacttgag caacaccaac atattttttc ttaaaatgtc acgttatctt catttggga aactaggctc tataaaatat ttatcctccc tgtttacttt tggagcacag cacagccaga aagggtgctg atttgtgccc aggtcaggag caaattgaaa aaaaaataa	Homo sapiens

225	3599	G Protein- Coupled Receptor 23 (GPR23)	NP_005287.1	MGDRRFEIDFQ LFVFCFRMKM NIYGSMLFLT VNNATTTCFE GTNKKKVLKM TLNCCFDPEI GGELMLESTF	QDSNSSLRP RSEIFAIFITN CISVDRFLAI GFSKRVWKTY ITVHMAVFW YYFTLESFQK	RLGNATANNT LAVSDLLFVC VYFPRSRTIR LSKITIFIEV CFVPYNSVLF SFYINAHIRM	CIVDDSEKYN LNNAVYSWVF NRHWPFGDTL GWILVLSGG VSCSSVVLRT TNCFLERFAK ESLFTETPL	ILGLITNSVS P Homo sapiens
226	3638	Parathyroid Hormone Receptor 2 (PTH2)	NM_005048	gcccgggtggc tgggccagcc tcttcctaca gctaagtctc tatagaggag agctcaactc gcccagagga caaccataaa cagcttaaat cagcatagga catctctttt ttgcactagg catctttgtc aataatgcag tatcgggtgc gatcctgggtg caaatacctg atgggctgtg catcaagtgg tctgaatacg cacaagggaag agtgcattac ccgcgatgcac ctgctactgc ctccgtggac cacccgtgacg tatctctggc tggctatgtc caagggaagat ggaatctaac	ccggggccga aagttggcaa gccgttcagg ggcagctgcc cagattgtcc caggaggagg acagtgggga ggagtgtgct aaaacatggg aagcaagaat ggttccttgg aactatatcc aaagacacag gatgacccac aagattgtctg gaaggtctct tggggcttca gcacgagcaa attatcaag gttagagttc caatacagga atcgtgttccg tgtagctct aatggagagg tggaagaagg cacagcacca aaagctgcca tgagtaact agagcgagga agggagatga aaggatgcca	ccaccccg cttggaagct gcatggccgg tccctggccg ttgtgctgaa aaggtaattg aaatatcgcc tccgacactg ccaattattc tctttgaacg ctgtggctat acatgcactt tagtccatgc aaaattccat ttgtgatgtt tggtgatgtt caccgatctt tagctaccaa aactggccaa atcggtgtccg tatgcctgcc tcttcaactc ttcaggcaga caccgccatg gcagccacga agatcgccag cagacgcct ctgcctgcca cactctttcc gagaagcctt aggatgttc	tactggccac tctggaggag tcgctccacg gattctgatg gcaccattac caatgtgaac tgggatggac cctccttata ggaacatggg cgctttctgc agccagatat atgtataccg ggttacttca ttcatgctga tccatgctgc gtaaggagc tctgtggaca ctggctacaa attattattg gtggctttct ccagcagcat tgtgttcgag tgggaaactta gtgctggaga gggctgaatt ttattctgtt accaatgcag gtcctggctc actgggctcg tctttgtgt atgtggagtc agatgcggt gcagcgccac gacagccaca tacttttacc cactctttcc gagaagcctt gaggtgttc	aagttgtctc A Homo sapiens

227	3638	Parathyroid Hormone Receptor 2 (PTH2)	NP_005039.1	<p> catttggtgc tgactttcat gggctgggtcc aatggctgggt tgtgtgagag ggcctgggctg  atactcctat gcttgagttc aaaggctgaa aattcagtta agtggttact taataatagt  ttttaggctc catgaattgg ctctgtgtaa tactaacgac atgaaatgc aagtgtcaat  ggagtagttt attaccttct attggcatca agttttcctc taaatgaatg tatggtattt  gctctgtgat tgttcatttt tttctgtctac ttttgggtag aaaaaagatt caattgcttg  gctgtagctt tctctcatat atatcacctt aaataaatg aagatctttt agtgtgtatc  attttccttt tagaaactag tatctcttta tttcttactt taatgtactt ctatcacctgc  atattattttg cctgtgcata ggagcaatta ggatctaaaa aaatatatgg gaagataaaa  gatctaagaa caagtacttg ctggaataat agttggctgg acattgataa aataatgcat  ttataacaat tacatgtgtt tttgggaaca aggaataatt ctcaaaaaag aatatttcac  acatcccttc ttttgaatgg cctctttgtg accagccaga cctcaggctt tcaactcttc  ttctttgtaa accatgtcat ttggaatgat ttctcagtt agtgagcttg tgtctgcaaa  ttgattttgt ttgtaatgta ttttgatagc aaatcatgct gcactatata ctttttcttg  tttgagctgt tactacattg tacatggcat gtgggatcaa ttaaaaaattt gttttaaaaa  t </p>	Homo sapiens
228	3640	Parathyroid Hormone Receptor 1 (PTH1)	NM_000316	<p> GCGGETEDVL  cggaggagac cggccctagg cgggtggcgt tggtgacgcc cggatcgcc cgggcctggc  gctcctgctc tgctgccccg tgctcagctc cgcgtacgcg ctggtggatg cagatgacgt  catgactaaa gaggaacaga tcttctgct gcaccgtgct caggcccagt gcgaaaaacg  gctcaaggag gtctgcaga gccagccag cataatggaa tcagacaagg gatggacatc  tgctccaca tcagggaagc ccaggaaaga taaggcatct gggaagctct accctgagtc  tgaggaggac aaggaggcac ccactggcag caggtaccga gggcgccctt gtcctgccga  atgggaccac atctgtgct gcccgctggg gccaccaggt gaggtgtgg ctgtgccctg  tccggactac attatgact tcaatcaca aggccatgcc taccgacgt gtgaccgcaa  tggcagctgg gagctgggag ctgggcacaa caggagctgg gccaaactaca gcgagtgtgt  caaatcttc accaatgaga ctggtgaacg ggaggtgttt gccgcctgg gcattgattta  cacctgggc tactcctgt cctggcgtc cctcaccta gctgtgctca tccctggccta  ctttaggcgg ctgactgca cgcgcaacta catccacatg cacctgttcc tgtccttcat  gctgcgcgc gtgagcatct tcgtcaagga cgctgtgctc tactctggcg ccacgttga  tgaggctgag cgcctcacc aggaggagct gcgcgccatc gccaggcgc cccgcgcgc  tgccaccgc gctgcggct acgcgggctg cagggtggct gtgaccttct tcccttactt  cctggccacc aactactact ggattctggt ggagggggctg tacctgcaca gcctcatctt </p>	Homo sapiens

229	3640	Parathyroid Hormone Receptor 1 (PTHr1)	NP_000307.1	catggccttc ttctcagaga agaagtacct gtggggcttc acagtcttgc gctggggtct gcccgtgtc ttctgtggctg tgtgggtcag tgcagagct accctggcca acacgggtg ctgggacttg agctccggga acaaaaagt gatcatccag gtgcccatcc tggcctccat tgtgtcaac ttcactctct tcatcaatat cgtccgggtg ctgccacca agctgaggga gacaaagcc ggcgggtgtg acacaggca aggtaccgg agctgtctca aatccagct ggtgtcatg cccctcttg gcgtccacta cattgtcttc atggccacac catacaccga ggtctcaggg acgtctggc agtccagat gcactatgag atgtcttca actcctoca gggatttttt gtcgcaatca tatactgtt ctgcaatggc gaggtacaag ctgagatcaa gaaatcttg agcgcgtgga cactggcact ggacttcaag cgaaggcac gcagcgggag cagcagctat agctacggc ccatgtgtc ccacaaagt gtgaccaatg tcggccccg tgtgggactc ggcctgccc ctagccccg cctactgcc actgccacca ccaacggcca ccctcagctg cctggccatg ccaagccagg gacccagcc ctggagacc tcgagaccac accacctgcc atggctgtc ccaaggacga tgggttctc aacggctcct gctcaggcct ggacgaggag gcctctggc ctgagcggc accctgccct ctacaggaa agtgggagac agtcatgtga ccaggcgtg gggcctggac ctgctgacat agtggatgga cagatggacc aaaagatggg tgggtgaatg atttccact cagggcctg ggccaagagg aaaaacaggg aaaaaaagaa aaaaaaaga aaaagaa	Homo sapiens
				VTMKEQIFL LHRQAQCEK RLKEVLQRP P SEEDKEAPT SRYPKPCIP EWDHILCWPL NGSWELVPGH NRTWANYSEC VKFLTNETRE YFRRLHCTRN YTHMHLFLSF MLRAVSIFFK PATAAAGYAG CRVAVTFFLY FLATNYYWIL LPAVFAVWV SVRATLANTG CWDLSSGNKK ETNAGRCDDR QQYRLLKST LVLMPFLGVH QGFVAVIYC FCNGEVQAEI KKSWSRWTLA RVGLGLPLSP RLLPTATNG HPQLPGHAKP LDEEASGPER PPALLQEEWE TVM	
230	3732	PACAP Receptor Type 1	NM_001118	agccacagaga cacattggg ctgacctgcc gctgctgtca gtgggaggcc agtgggtgctg A gccaagaagt gtcatggctg gtgtcgtgca cgtttccctg gctgtcact gcggggcctg tccgtggggc cggggcagac tccgcaaagg acgcgcagcc tgcaagtccg cggccacagag acacattggg gctgacctg cgtgctgtc agtgggaggc cagtgtgtct ggccaagaag tgtcatggct ggtgtcgtg acgtttccct gctgctctc ctcctgtgc ctatggcccc tgccatgcat tctgactgca tcttcaagaa ggagcaagcc atgtgcctgg agaagatcca gagggccaat gagctgatg gcttcaatga tctcttcca gctgtctcgt ggatgtggga caacatcacg tgttgaagc cgcacctgt ggttgagatg gtccctgtca gctgccccga gctcttccga atcttcaacc cagaccaagt ctgggagacc gaaaccttg gagagtctga ttttggtgac agtaactcct tagatctctc agacatggga gtggtagacc ggaactgca ggaggatggc tggctgggaa ccttccctca tctcttctga gctgtgggt ttgatgaata tgaatctgag actgggggacc aggattatta ctacctgtca gtgaaggccc tctacacggt tggctacagc acatccctg tcacctcac cactgacctg gtcactctt gtcgcttccg gaagctgac tgcacacgca acttcatcca catgaacctg tttgtgtcgt tcatgtgtgag	Homo sapiens

231	3732	PACAP Receptor Type 1	NP_001109.1	<p> ggcgaatctcc gtcttcatca aagactggat tctgtatgcy gagcaggaca gcaaccactg  cttcatctcc actgtggaat gtaaggccgt catggttttc ttccactact gtgtgtgtgc  caactacttc tggctgttca tcgagggcct gtacctcttc actctgctgg tggagacctt  cttccctgaa aggagatact tctactggta caccatcatt ggctggggga ccccaactgt  gtgtgtgaca gtgtgggcta cgtgagact ctactttgat gacacaggct gctgggatat  gaatgacagc acagctctgt ggtgggtgat caaaggccct gtggttggtc ctatcatggt  taactttgtg cttttttattg gcatctatgt cactcttgtg cagaaacttc agtctccaga  catgggaggc aatgagtcca gcatctactt ggcactggcc cgttccccc tgcgtgctcat  cccactattc ggaatccact acacagtatt tgccttctcc ccagagaatg tcagcaaaaag  ggaagactc gtgtttgagc tggggctggg ctcttccag ggttttggtg tggctgttct  ctactgtttt ctgaatggtg aggtacaagc ggagatcaag cgaataatggc gaagctggaa  ggtgaaccgt tacttgcgtg tggacttcaa gcaccgacac cgtctctggt ccagcagtgg  ggtgaatggg ggcacccagc tctccactct gagcaagagc agtcccaaa tccgcatgtc  tggcctccct gctgacaatc tggccacctg agccatgctc cccct  VHVSLAALL LLPMAPMHS DCIFKKEQAM KSAAQRHIGA DLPLLSVGGQ WCWPRSRVMAG P  WKPAPVGMV LVSCPELFRI FNPQVWETE TIGESDFGDS NSLDLSDMGV VSRNCTEDGW  SEFPFHYFDA CGFEYESET GDQYVYLSV KALYTVGYST SLVTLTTAMV ILCFRKLHC  TRNFHMLNF VSEMLRAISV FIKDWILYAE QDSNHCFFST VECKAVMVFF HYCVVSNYFW  LFTEGLYLF LLVETFFPER RYFYWYTIIG WGTPTVCVTV WATLRLYFDD TGCWDMNDST  ALHWVVIKGPV VGSIMVNFVL FIGIIVILVQ KIQSPDMGNN ESSIYLRAR STLLLIPLFG  IHYTVFAFSP ENVSKRERLV FELGLSFQ FVAVLYCFL NGEVQAEIKR KWRSWKVNRY  FAVDFKRRHP SLASSGVNGG TQLSILSKSS SQIRMSGPLA DNLAT  atggaggaag gtggtgattt tgacaactac tatggggcag acaaccagtc tgagtgtgag A  tacacagact ggaatcctc gggggccctc atccctgcca tctacatgtt ggtcttcttc  ctgggcacca cgggaaacgg tctggtgctc tggaccgtgt ttcggagcag ccgggagaaag  aggcgtcag ctgatatctt cattgctagc ctggcgtgtg ctgacctgac ctctgtgtg  acgtgcccc tgtgggtac ctacacgtac cgggactatg actggccctt tgggaccttc  ttctgcaagc tcagcagcta cctcatcttc gtcaacatgt acgccagcgt ctctgcctc  accggcctca gcttcgaccg ctacctggcc atcgtgagggc cagtggccaa tgcctggctg  aggctgctgg tcagcggggc cgtggccacg gcagttcttt ggtgctggc cgcctcctg  gccatgctg tcatggtgtt acgcaccacc ggggacttgg agaaccacac taaggtgcag  tgctacatgg actactccat ggtggccact gtgagctcag agtgggctg ggaggtgggc  cttggggtct cgtccaccac cgtgggctt gtggtgacct tcaccatcat cgtgacctgt  tactttctca tgcgccaacac catcgctggc cacttccgca aggaacgcat cgagggcctg  cggaagcggc gccggctgct cagcatcacc gtggtgctgg tggtagacct tgcctgtg  tggatgacct accactggt gaagacgctg tacatgctgg gcagctgct gacctggccc  tgtgactttg acctctctc catgaacatc ttccctact gcacctgcat cagctacgtc  aacagctgcc tcaacccctt cctctatgcc ttttccgacc cccgctccg ccaggcctgc  acctccatgc tctgctgtgg ccagagcagg tgcgcaggca cctccacag cagcagtggg  gagaagtcat ccagctactc ttccggggcac agccaggggc ccggcccaaa catgggcaag </p>	Homo sapiens
232	3844	Apelin Receptor	NM_005161	<p> atggaggaag gtggtgattt tgacaactac tatggggcag acaaccagtc tgagtgtgag A  tacacagact ggaatcctc gggggccctc atccctgcca tctacatgtt ggtcttcttc  ctgggcacca cgggaaacgg tctggtgctc tggaccgtgt ttcggagcag ccgggagaaag  aggcgtcag ctgatatctt cattgctagc ctggcgtgtg ctgacctgac ctctgtgtg  acgtgcccc tgtgggtac ctacacgtac cgggactatg actggccctt tgggaccttc  ttctgcaagc tcagcagcta cctcatcttc gtcaacatgt acgccagcgt ctctgcctc  accggcctca gcttcgaccg ctacctggcc atcgtgagggc cagtggccaa tgcctggctg  aggctgctgg tcagcggggc cgtggccacg gcagttcttt ggtgctggc cgcctcctg  gccatgctg tcatggtgtt acgcaccacc ggggacttgg agaaccacac taaggtgcag  tgctacatgg actactccat ggtggccact gtgagctcag agtgggctg ggaggtgggc  cttggggtct cgtccaccac cgtgggctt gtggtgacct tcaccatcat cgtgacctgt  tactttctca tgcgccaacac catcgctggc cacttccgca aggaacgcat cgagggcctg  cggaagcggc gccggctgct cagcatcacc gtggtgctgg tggtagacct tgcctgtg  tggatgacct accactggt gaagacgctg tacatgctgg gcagctgct gacctggccc  tgtgactttg acctctctc catgaacatc ttccctact gcacctgcat cagctacgtc  aacagctgcc tcaacccctt cctctatgcc ttttccgacc cccgctccg ccaggcctgc  acctccatgc tctgctgtgg ccagagcagg tgcgcaggca cctccacag cagcagtggg  gagaagtcat ccagctactc ttccggggcac agccaggggc ccggcccaaa catgggcaag </p>	Homo sapiens

233	3844	Apelin Receptor	NP_005152.1	ggtggagaac agatgcacga gaaatccatc cctacagcc aggagaccct tgtggttgac tag	Homo sapiens
				MEEGGDFDNY YGADNQSECE YTDWKSSGAL IPAIYMLVFL LGTTGNGLVL WTVFRSSREK P RRSADIFIAS LAVADLTFWV TPLWATYTY RDYDWPFGTF FCKLSSYLIF VNMVASVFCL TGLSFDRLA IVRPVANARL RLRVSGAVAT AVLWVLAALL AMPVMVLRIT GDLENTTKVQ CYMDSMVAT VSSEWANEVG LGVSSTTVGF VVPFTIMLTC YFFIAQTIAG HFRKERIEGL RKRRRLLSII VVLVVTFALC WMPYHLVKTL YMLGSLIHWP CDFDLFIMNI FPYCTCISYV NSCLNPFLYA FPDPRFRQAC TSMMLCCGQSR CAGTSHSSG EKASYSYSSGH SQPGPNMGK GGEQMHEKSI PYSQETLVVD	
234	3845	Chemokine- Like Receptor 1 (CMKLR1)	NM_004072	gaattcggca cgagtcaggg aagcagcccc ggcgccagc agggagctca ggacagagca A ggctccctgg gaagcctccg ggtgatagg ggtgtccagc tgcggcgctc tgggggttca gagggggatc ttgaatgaac aatgaatga actgctttct gggcaaacag ccacagccag aggagcctgt gattggcaga aagaagccag ggtgtgcaag tctcccaac agcctcgagt ggcctgcagt cacagggaac cctcaggaag acctccggg cagagaccag agggaagccc atctctccag cagaactgct tggatttttc taccagagg ctcagggtc tgcaacaatg atagcagaag ctgatggcat ctgagatct aggcctggac tagcacagca tcaactctac cactttctgt tggtcacagc aactcaccat gccagtgcag attcaagggg aggagaaata gagtcacatt cttgatggga ggcgtgacat agaattggag atgaagatta caacacttcc atcagttacg gtgatgaata cctgattat ttagactcca ttgtggtttt ggaggactta tccccctgg aagccaggt gaccaggatc ttctgggtg tggctacag catcgtctgc ttctcggga ttctgggcaa tggctgggtg atcatcattg ccacctcaa gatgaagaag acagtgaaca tggctggtt cctcaacctg gcagtgccag atttctctgt caacgtcttc ctcccaatcc atatcaccta tgcggccatg gactaccat ccagcgtctt cctcgtgac tgcaagatca gcaacttctt tctcatccac aacatgttca ccagcgtctt cctcgtgac atcatcagct ctgaccgctg catctctgtg tctctccctg tctgggtccca gaaccaccg agcgttcgcc tggcttacat ggctgcatg gtcatctggg tcttggcttt ctcttgagt tccccatctc tctgtcttcc ggacacagcc aacctgcatg ggaaaatatc ctgcttcaac aacttcagcc tgtccacacc tgggtcttcc tctgtgccc ctaactccca aatggacct gtgggggtata gccggcacat ggtgggtgact gtcaccgct tctctgtgg cttcctggtc ccagtcctca tcatcacagc ttgctacctc acctcgtgt gcaaaactgca gcgcaaccg ctggccaaga ccaagaagcc cttaagatt attgtgacca tcatcattac cttcttctc tgctgggtgcc cctaccacac actcaacctc ctgagctcc accacactgc catgcctggc tctgtcttca gcctgggttt gccctggcc actgcccttg cagtgcata cagctgcata aaccctattc tttatgtttt catgggtcag gacttcaaga agttcaaggt ggcctcttc tctgcctgg tcaatgctct aatgaagat cagggccact cttctacc cagccataga agctttacca agatgtcatc aatgaatgag aggacttcta tgaatgagag ggagaccggc atgctttgat cctcactgtg gaacctca atggactctc tcaaccagg gacaccaag gatattctt ctgaagatca aggcaagaac cttcttagca tccaccaat ttcactgcat tttgcatggg atgaacagtg ttttatgtg ggaatctagg gcttgaacc ctttcttct agtggacaga acatgctgtg ttccatacag ccttggacta gcaatttatg cttcttggga ggccagcctt gactgactca aagcaaaaaa ggaagaattc	Homo sapiens

[illegible]

237	3846	Sphingolipid NP_001391.2 Receptor Edg1	catgtaagcg ggatecgttt ttggaattt ggtgaagtc acttgattt ctttaaaaa catcttttca atgaatgtg ttaccattc ataccattg aagccgaat ctgcataagg aagccactt tatctaatg atattagcca ggatecgtg tgctcaggaa gaaacagaca agcaaaaca agtgaatac gaatgatta acttttcaa accaaggag atttcttagc aatgagtc tacaatatg acatcgtct tccccattt tttgatgtt tatttcagaa tcttggtga ttcatttcaa gcaacaacat gttgtattt ttgatgtt aagtacttt cttgattttt gaatgtatt gtttcaggaa gaatcattt tatggattt tctaaccgt gttaactttt ctagaatcca cctcttgtg ccttaagca ttactttaac tggtaggaa cgccagaact ttttaagtcca gctattcatt agatagtaat tgaagatatg tataaatatt acaaagaata aaaaatat actgtctctt tagtatggtt ttcatgtcaa ttaaacccgag agatgtcttg tttttttaa aagaatagta ttaatatggt ttctgacttt tgtggatcat tttgacacata gctttatcaa cttttaaaca ttaataaact gatttttta aag MGPTSVPLVK AHRSSVSDYV NYDIIVRHYN YTGKLNISAD KENSIKLTSV VFILICCFII P LENI FVLLTI WTKKKFHRPM YFIGNLALS DLLAGVAYTA NLLSGATTY KLTPAQWFLR EGSMFVALSA SVESLLAI AI ERYITMLKMK LHNGSNFRL FLISACWVI SLILGGLPIM GWNCISALSS CSTVLPYHK HYILFCTTVF TLLLSIVIL YCRIYSIVRT RSRRLTFRKN ISKASRSSEK SLALLKTVII VLSVFIACWA PLFILLLLDV GCKVKTCDIL FRAEYFLVLA VLNSGTNP II YTLTNKEMRR AFTRIMSCCK CP SGDSAGKE KRPILAGNEF SRKSDNSSH PQKDEGDNPE TIMSSGNVNS SS atggcaactg cctcccgc gcgtctccag ccggtgcggg ggaacgagac cctgcgggag A cattaccagt acgtgggaa gttgggggc aggtgaagg aggcctcga ggcagcagc ctcaccaccg tgctctctt ggtcatctg agcttcacg tcttgagaa cctgatggtt ttgattgcca tctgaaaaa caataaatt cacaaccga tgaattttt catggtcggc ctggctctt gcgacctgt ggcgggcat gcttaacaagg tcaacattt gatgtctggc aagaagacgt tcagcctgt tcccaggtc tggttctca gggagggag tatgtctgtg gcccgtggg cgtccacct gccttacga cgccaacaag aggcacgcg tcttctctt gatcgggatg atcaaaatga ggccttacga cgtcttcac gctggggcc cttactcca agaagatcat tgccttctg tgctggctca ttgctctac cactctgacc cctctgacc agaatcga cctcacttc aatctccctg actgctctac cactctgacc cctggtgacc atcgtgatcc tctacgcac catctacttc atcagcatct tcacggccat cctggtgacc taaggtggcc aaccacaaca actcggagcg gtccatggca ctggtgaagt ccagcagccg cgtggtgat tgggtgagc gtgttcatcg cctgctggtc cccactcttc ctgctgcgga cgtggtgat tgcctgcat ggcctgcag gtgcaggcgt gccccatctt cttcaaggct atcctcttcc tcatgtatgt tgcgttggc tgcgttcaac tccggctcat ctacacgctg cagtggttca tgcgttggc tgcgttggc tgcgttggc tgcgttggc tgcgttggc tgcgttggc gccagcaagg agatgcggcg ggccttctc cgtctggtct gcaactgctt ggtcagggga cgggggggcc ggcctcacc catccagcct ggcctcagg gtcaaggaa accctgcccc cagagcccc agcagcaaca atagcagcca cctctccgaag gtcaaggaa accctgcccc cagagcccc tcctctgca tcatggaca gaacgagca cttcagaatg ggtatctctg caactga tcatctgca tcatggaca gaacgagca cttcagaatg ggtatctctg caactga MATALPPRLQ PVRNETLRE HYQVVGKLAG RLKASEGST LTTVFLVIC SFIVLENIMV P LIAIWKNNKF HNNMYFFIGN LALCDLLAGI AYKVNILMSG KKTFSLSPTV WFLRESMFV ALGASTCSLL AIAIERHILTM IKMRPYDANK RHRVFLIIM CWLIAFTLGA LPILGNCLH	Homo sapiens
238	3847	Sphingolipid NM_005226 Receptor Edg3	atggcaactg cctcccgc gcgtctccag ccggtgcggg ggaacgagac cctgcgggag A cattaccagt acgtgggaa gttgggggc aggtgaagg aggcctcga ggcagcagc ctcaccaccg tgctctctt ggtcatctg agcttcacg tcttgagaa cctgatggtt ttgattgcca tctgaaaaa caataaatt cacaaccga tgaattttt catggtcggc ctggctctt gcgacctgt ggcgggcat gcttaacaagg tcaacattt gatgtctggc aagaagacgt tcagcctgt tcccaggtc tggttctca gggagggag tatgtctgtg gcccgtggg cgtccacct gccttacga cgccaacaag aggcacgcg tcttctctt gatcgggatg atcaaaatga ggccttacga cgtcttcac gctggggcc cttactcca agaagatcat tgccttctg tgctggctca ttgctctac cactctgacc cctggtgacc atcgtgatcc tctacgcac catctacttc aatctccctg actgctctac cactctgacc cctggtgacc taaggtggcc aaccacaaca actcggagcg gtccatggca atcagcatct tcacggccat cctggtgacc taaggtggcc aaccacaaca actcggagcg gtccatggca ctggtgaagt ccagcagccg cgtggtgat tgggtgagc gtgttcatcg cctgctggtc cccactcttc ctgctgcgga cgtggtgat tgcctgcat ggcctgcag gtgcaggcgt gccccatctt cttcaaggct atcctcttcc tcatgtatgt tgcgttggc tgcgttcaac tccggctcat ctacacgctg cagtggttca tgcgttggc tgcgttggc tgcgttggc tgcgttggc tgcgttggc tgcgttggc gccagcaagg agatgcggcg ggccttctc cgtctggtct gcaactgctt ggtcagggga cgggggggcc ggcctcacc catccagcct ggcctcagg gtcaaggaa accctgcccc cagagcccc agcagcaaca atagcagcca cctctccgaag gtcaaggaa accctgcccc cagagcccc tcctctgca tcatggaca gaacgagca cttcagaatg ggtatctctg caactga tcatctgca tcatggaca gaacgagca cttcagaatg ggtatctctg caactga MATALPPRLQ PVRNETLRE HYQVVGKLAG RLKASEGST LTTVFLVIC SFIVLENIMV P LIAIWKNNKF HNNMYFFIGN LALCDLLAGI AYKVNILMSG KKTFSLSPTV WFLRESMFV ALGASTCSLL AIAIERHILTM IKMRPYDANK RHRVFLIIM CWLIAFTLGA LPILGNCLH	Homo sapiens
239	3847	Sphingolipid NP_005217.1 Receptor Edg3	atggcaactg cctcccgc gcgtctccag ccggtgcggg ggaacgagac cctgcgggag A cattaccagt acgtgggaa gttgggggc aggtgaagg aggcctcga ggcagcagc ctcaccaccg tgctctctt ggtcatctg agcttcacg tcttgagaa cctgatggtt ttgattgcca tctgaaaaa caataaatt cacaaccga tgaattttt catggtcggc ctggctctt gcgacctgt ggcgggcat gcttaacaagg tcaacattt gatgtctggc aagaagacgt tcagcctgt tcccaggtc tggttctca gggagggag tatgtctgtg gcccgtggg cgtccacct gccttacga cgccaacaag aggcacgcg tcttctctt gatcgggatg atcaaaatga ggccttacga cgtcttcac gctggggcc cttactcca agaagatcat tgccttctg tgctggctca ttgctctac cactctgacc cctggtgacc atcgtgatcc tctacgcac catctacttc aatctccctg actgctctac cactctgacc cctggtgacc taaggtggcc aaccacaaca actcggagcg gtccatggca atcagcatct tcacggccat cctggtgacc taaggtggcc aaccacaaca actcggagcg gtccatggca ctggtgaagt ccagcagccg cgtggtgat tgggtgagc gtgttcatcg cctgctggtc cccactcttc ctgctgcgga cgtggtgat tgcctgcat ggcctgcag gtgcaggcgt gccccatctt cttcaaggct atcctcttcc tcatgtatgt tgcgttggc tgcgttcaac tccggctcat ctacacgctg cagtggttca tgcgttggc tgcgttggc tgcgttggc tgcgttggc tgcgttggc tgcgttggc gccagcaagg agatgcggcg ggccttctc cgtctggtct gcaactgctt ggtcagggga cgggggggcc ggcctcacc catccagcct ggcctcagg gtcaaggaa accctgcccc cagagcccc agcagcaaca atagcagcca cctctccgaag gtcaaggaa accctgcccc cagagcccc tcctctgca tcatggaca gaacgagca cttcagaatg ggtatctctg caactga tcatctgca tcatggaca gaacgagca cttcagaatg ggtatctctg caactga MATALPPRLQ PVRNETLRE HYQVVGKLAG RLKASEGST LTTVFLVIC SFIVLENIMV P LIAIWKNNKF HNNMYFFIGN LALCDLLAGI AYKVNILMSG KKTFSLSPTV WFLRESMFV ALGASTCSLL AIAIERHILTM IKMRPYDANK RHRVFLIIM CWLIAFTLGA LPILGNCLH	Homo sapiens



240	3848	C-C Chemokine Receptor 9	NM_006641	NLPDCSTILP LYSKKYIAFC ISIFTAILVT IVILYARIYF LKSSSRKVA NHNNSERSMA LLRTVVIVVS VFIACWSPLF ILFLIDVACR VQACPILFKA QWFIVLAVLN SAMNPVIYTL ASKEMRRRAFF RLVCNCLVRG RGARASPIQP ALDPSRSKSS SSNNSSHSPK VKEDLPHTDP SSCIMDKNAA LQNGIFCN	gcccctcadc ccaggcagag agcaacccag ctctttcccc agacactgag agctggtggt A gctgtctgtc ccaggagagag ttgcctgcgc ctccacaagc cctattccta acatggctga tgactatggc tctgaatcca catcttccat ggaagactac gttaaactca acttcactga cttctactgt gagaaaaaca atgtcaggca gtttgcgagc catttctccc cacccttgta ctggctcgtg ttcatcgtgg gtgccttggg tgaccgacat gttccttttg aatttgcaa ttgctgacct ctgcacaaga gtgaagacca tgaccgacat ccttctgggc cattgtgct gctgaccagt ggaagtcca cctctttctt gtcactcttc tgcaagggtg tcaacagcat gtacaagatg aacttctaca gctgtgtgtt gaccttcattg tgcattcagc tggacaggta cattgccatt gccaggcca tgagagcaca tacttggagg gagaaaaggc tttgtacag caaaatggtt tgctttacca tctgggtatt ggcagctgct ctctgcctcc cagaaatctt atacagcaa atcaaggagg aatccggcat tgctatctgc accatgggtt accctagcga tgagagcacc aaactgaagt cagctgtctt gacctgaag gtcattctgg ggttctctt tccctcgtg gtcatggctt gctgctatcc catcatcatt cacacctga tacaagccaa gaagtcttcc aagcacaagg ccttaaaagt gaccatcact gtccctgacc tctttgtctt gtctcagttt cctacaact gcattttgtt ggtgcagacc attgacgct atgcccatt gtcctcaac tgtgcccgtt ccaccaacat tgacatctgc ttccaggta cccagaccat cgccttcttc cacagtgc tgaaacctgt tctctatgtt ttgtgggtg agagattccg ccgggatactc gtgaaaaacc tgaagaactt gggttgcctc agccaggccc agtgggttcc atttacaagg agagaggaa gcttgaagct gtcgtctatg ttgctggaga caacctcagg agcactctcc ctctgagggt tcttctctga ggtgcagtgt tcttttgaa gaaatgagaa atacagaaac agtttcccc ctgatgggac cagagagagt gaaagagaa agaaaactca gaaaggatg aatctgaact atatgattac ttgtagtcat aatttgcaa agcaaatatt tcaaaatcaa ctgactagt caggaggctg ttgatggct cttgactgtg atgcccga tctcaaaagg aggactaagg accggcactg tgagacccc tggctttgccc actgcccga gcatcaatgc cgtgcctct ggaggagccc ttggatttcc tccatgcact gtgaacttct gtggcttcag ttctcatgct gcctcttcca aaaggggaca cagaagcact ggcgtgctgt acagaccgca aaagcagaaa gtttcgtgaa aatgtccatc ttgggaaat ttctaccct gctcttgagc ctgataacc atgccaggtc ttatagattc ctgatctaga acctttccag gcaatctcag acctaatctc tctctgttct ccttgttctg ttctgggcca gtgaaggctc ttgttctgat ttgaaacga tctgcaggtc ttgccagtga acccttgac aactggacc acccaagg catccaaagt ctgttggctt ccaatccatt tctgtgtcct gctggaggtt ttaacctaga caaggattcc gcttattcct tggtatggtg acagtgtctc tccatggcct gagcaggag attataacag ctgggttccg aggagcagc ctgtggcctg ttgtaggctt ttctgttga gtggcactg ctttgggtcc accgtctgtc tgctccctag aaaaagggtt ggttcttttg gccctcttct tctgaggcc cactttatc tgaggaatc agtgagcaga tatgggcagc agccaggtag gcaaaagggg tgaagcgcag gccttgctg aagcttattt acttccatgc ttctctttt cttactctat	Homo sapiens
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241	3848	C-C Chemokine Receptor 9	NP_006632.2	WADDYGESEST SSMEDYVNFN FTDFYCEKNN VRQFASHFLP PLYWLVFIVG ALGNSLVILV P YMYCTRVKTM TDMFLNLAI ADLLFLVTLF FWALAAADQW KFQTFMCKV NMVYKMFYS CVLLIMCISV DRYTAAQAM RAHTWREKRL LYSKMVCFTI WVLAAALCIP EILYSQIKEE SGIAICTMVY PSESTKLKS AVLTLKVLG FFLPFVVMAC CYTIIHTLI QAKKSSKHKA LKVTITVLTV FVLSQFPYNC ILLVQTIDAY AMFISNCAVS TNIDICFQVT QTIAFFHSCL NPVLYVFVGE RFRDLVKTL KNLGCSIAQ WVSFTRREGS LKLSMLLET TSGALS L at agtggaagatt tggaggaaac attatttgaa gaatttgaaa actattccta tgacctagac A tattactctc tggagctga tttggaggag aaagtcagc tgggagttgt tcactgggtc tccctgggtg tataattgtt ggcctttgtt ctgggaattc caggaaatgc catcgctcatt tgggtcacgg ggcctaaagt gaagaagaca gtcaccactc tgggttccct caatcctagcc attgcggatt tcaattttct tctctttctg cccctgtaca tctcctatgt ggccatgaat ttccactggc cctttggcat ctggctgtgc aaagccaatt ccttcactgc ccagttgaac atgtttgccca gtgttttttt cctgacagtg atcagcctgg accactatat ccacttgatc catcctgtct tatctcatcg gcatcgaacc ctcaagaact cctgattgt cattatatc atctggcttt tggcttctct aattggcggg cctgcccctg acttccggga cactgtggag ttcaataatc atactctttg ctataacaa tttcagaagc atgatcctga cctcactttg atcaggcacc atgttctgac ttgggtgaaa tttatcattg gctatctctt ccttttgcta acaatgagta tttgctactt gtgctcctac ttcaaggtga agaagcgaac agtctctgac tccagtaggc attctggac aattctggtt gtggttggtg cttgttggtt ttgctggact ccttatcacc tgtttagcat ttgggagctc accattcacc acaatagcta tccccaccat gtgatgcagg ctggaatccc cctctccact ggtttggcat tcccaagctc gctccgggtc ctgagttgct cccatccttt atgtccta at tagtaagaag ttccaagctc gctccgggtc ctgagttgct gagatactca agtacacact gtggaagtc agctgttctg gcacagtgag tgaacagctc aggaactcag aaaccaagaa tctgtgtctc ctggaacacag ctcaataa MEDLEETLFE EFENYSYDLD YYSLESDLEE KVQLGVHWV SLVLYCLAFV LGIPGNAIVI P WFTGLKWKKT VTTLWFLNLA IADFTFLFL PLYISYVAMN FHWPFGIWLC KANSFTAQLN MFASVFLTV ISLDHYIHLI HPVLSHRHRT LKNSLIVIF IWLLASLIGG PALYFRDIVE FNNHTLCYNN FQKHPDLTL IRHVLTWVK FIIGLYFPLL TMSICYLCLI FKVKKRTVLI SSRHFWTILV VVAFVVCWT PYHLFSIWEL TIHNSYSHH VMOAGIPLST GLAFLNSCLN PILYVLISK FQARERSVA EILKYTLWEV SCSGTVSEQL RNSETKNLCL LETAQ atggcctcat cgaccactcg gggcccccag gtttctgact tatttcttg gctgccgccc A gcggtcaca ctcccgcac caagagcga gaggcctcg cgggcaacgg gtcggtggct ggcgcgagc ctccagcgt cagccctc cagagcctgc agctggtgca tcagctgaag gggctgacg tgcgtctc cagcgtcgtg gtggtcgtgg gctggtggg caactgcctg ctggtgctg tgatgcgcg ggtgcgcgg gtcacacacg tgacgaact cctcatcgcc aacctggcct tgcgcgacgt gctcatgtgc accgcctgcg tgcgctcac gctggcctat	Homo sapiens
242	3849	G Protein- Coupled Receptor GPR1	NM_005279	atggaagatt tggaggaaac attatttgaa gaatttgaaa actattccta tgacctagac A tattactctc tggagctga tttggaggag aaagtcagc tgggagttgt tcactgggtc tccctgggtg tataattgtt ggcctttgtt ctgggaattc caggaaatgc catcgctcatt tgggtcacgg ggcctaaagt gaagaagaca gtcaccactc tgggttccct caatcctagcc attgcggatt tcaattttct tctctttctg cccctgtaca tctcctatgt ggccatgaat ttccactggc cctttggcat ctggctgtgc aaagccaatt ccttcactgc ccagttgaac atgtttgccca gtgttttttt cctgacagtg atcagcctgg accactatat ccacttgatc catcctgtct tatctcatcg gcatcgaacc ctcaagaact cctgattgt cattatatc atctggcttt tggcttctct aattggcggg cctgcccctg acttccggga cactgtggag ttcaataatc atactctttg ctataacaa tttcagaagc atgatcctga cctcactttg atcaggcacc atgttctgac ttgggtgaaa tttatcattg gctatctctt ccttttgcta acaatgagta tttgctactt gtgctcctac ttcaaggtga agaagcgaac agtctctgac tccagtaggc attctggac aattctggtt gtggttggtg cttgttggtt ttgctggact ccttatcacc tgtttagcat ttgggagctc accattcacc acaatagcta tccccaccat gtgatgcagg ctggaatccc cctctccact ggtttggcat tcccaagctc gctccgggtc ctgagttgct cccatccttt atgtccta at tagtaagaag ttccaagctc gctccgggtc ctgagttgct gagatactca agtacacact gtggaagtc agctgttctg gcacagtgag tgaacagctc aggaactcag aaaccaagaa tctgtgtctc ctggaacacag ctcaataa MEDLEETLFE EFENYSYDLD YYSLESDLEE KVQLGVHWV SLVLYCLAFV LGIPGNAIVI P WFTGLKWKKT VTTLWFLNLA IADFTFLFL PLYISYVAMN FHWPFGIWLC KANSFTAQLN MFASVFLTV ISLDHYIHLI HPVLSHRHRT LKNSLIVIF IWLLASLIGG PALYFRDIVE FNNHTLCYNN FQKHPDLTL IRHVLTWVK FIIGLYFPLL TMSICYLCLI FKVKKRTVLI SSRHFWTILV VVAFVVCWT PYHLFSIWEL TIHNSYSHH VMOAGIPLST GLAFLNSCLN PILYVLISK FQARERSVA EILKYTLWEV SCSGTVSEQL RNSETKNLCL LETAQ atggcctcat cgaccactcg gggcccccag gtttctgact tatttcttg gctgccgccc A gcggtcaca ctcccgcac caagagcga gaggcctcg cgggcaacgg gtcggtggct ggcgcgagc ctccagcgt cagccctc cagagcctgc agctggtgca tcagctgaag gggctgacg tgcgtctc cagcgtcgtg gtggtcgtgg gctggtggg caactgcctg ctggtgctg tgatgcgcg ggtgcgcgg gtcacacacg tgacgaact cctcatcgcc aacctggcct tgcgcgacgt gctcatgtgc accgcctgcg tgcgctcac gctggcctat	Homo sapiens
243	3849	G Protein- Coupled Receptor GPR1	NP_005270.1	atggaagatt tggaggaaac attatttgaa gaatttgaaa actattccta tgacctagac A tattactctc tggagctga tttggaggag aaagtcagc tgggagttgt tcactgggtc tccctgggtg tataattgtt ggcctttgtt ctgggaattc caggaaatgc catcgctcatt tgggtcacgg ggcctaaagt gaagaagaca gtcaccactc tgggttccct caatcctagcc attgcggatt tcaattttct tctctttctg cccctgtaca tctcctatgt ggccatgaat ttccactggc cctttggcat ctggctgtgc aaagccaatt ccttcactgc ccagttgaac atgtttgccca gtgttttttt cctgacagtg atcagcctgg accactatat ccacttgatc catcctgtct tatctcatcg gcatcgaacc ctcaagaact cctgattgt cattatatc atctggcttt tggcttctct aattggcggg cctgcccctg acttccggga cactgtggag ttcaataatc atactctttg ctataacaa tttcagaagc atgatcctga cctcactttg atcaggcacc atgttctgac ttgggtgaaa tttatcattg gctatctctt ccttttgcta acaatgagta tttgctactt gtgctcctac ttcaaggtga agaagcgaac agtctctgac tccagtaggc attctggac aattctggtt gtggttggtg cttgttggtt ttgctggact ccttatcacc tgtttagcat ttgggagctc accattcacc acaatagcta tccccaccat gtgatgcagg ctggaatccc cctctccact ggtttggcat tcccaagctc gctccgggtc ctgagttgct cccatccttt atgtccta at tagtaagaag ttccaagctc gctccgggtc ctgagttgct gagatactca agtacacact gtggaagtc agctgttctg gcacagtgag tgaacagctc aggaactcag aaaccaagaa tctgtgtctc ctggaacacag ctcaataa MEDLEETLFE EFENYSYDLD YYSLESDLEE KVQLGVHWV SLVLYCLAFV LGIPGNAIVI P WFTGLKWKKT VTTLWFLNLA IADFTFLFL PLYISYVAMN FHWPFGIWLC KANSFTAQLN MFASVFLTV ISLDHYIHLI HPVLSHRHRT LKNSLIVIF IWLLASLIGG PALYFRDIVE FNNHTLCYNN FQKHPDLTL IRHVLTWVK FIIGLYFPLL TMSICYLCLI FKVKKRTVLI SSRHFWTILV VVAFVVCWT PYHLFSIWEL TIHNSYSHH VMOAGIPLST GLAFLNSCLN PILYVLISK FQARERSVA EILKYTLWEV SCSGTVSEQL RNSETKNLCL LETAQ atggcctcat cgaccactcg gggcccccag gtttctgact tatttcttg gctgccgccc A gcggtcaca ctcccgcac caagagcga gaggcctcg cgggcaacgg gtcggtggct ggcgcgagc ctccagcgt cagccctc cagagcctgc agctggtgca tcagctgaag gggctgacg tgcgtctc cagcgtcgtg gtggtcgtgg gctggtggg caactgcctg ctggtgctg tgatgcgcg ggtgcgcgg gtcacacacg tgacgaact cctcatcgcc aacctggcct tgcgcgacgt gctcatgtgc accgcctgcg tgcgctcac gctggcctat	Homo sapiens
244	3850	G Protein- Coupled Receptor 10 (GPR10)	NM_004248	atggaagatt tggaggaaac attatttgaa gaatttgaaa actattccta tgacctagac A tattactctc tggagctga tttggaggag aaagtcagc tgggagttgt tcactgggtc tccctgggtg tataattgtt ggcctttgtt ctgggaattc caggaaatgc catcgctcatt tgggtcacgg ggcctaaagt gaagaagaca gtcaccactc tgggttccct caatcctagcc attgcggatt tcaattttct tctctttctg cccctgtaca tctcctatgt ggccatgaat ttccactggc cctttggcat ctggctgtgc aaagccaatt ccttcactgc ccagttgaac atgtttgccca gtgttttttt cctgacagtg atcagcctgg accactatat ccacttgatc catcctgtct tatctcatcg gcatcgaacc ctcaagaact cctgattgt cattatatc atctggcttt tggcttctct aattggcggg cctgcccctg acttccggga cactgtggag ttcaataatc atactctttg ctataacaa tttcagaagc atgatcctga cctcactttg atcaggcacc atgttctgac ttgggtgaaa tttatcattg gctatctctt ccttttgcta acaatgagta tttgctactt gtgctcctac ttcaaggtga agaagcgaac agtctctgac tccagtaggc attctggac aattctggtt gtggttggtg cttgttggtt ttgctggact ccttatcacc tgtttagcat ttgggagctc accattcacc acaatagcta tccccaccat gtgatgcagg ctggaatccc cctctccact ggtttggcat tcccaagctc gctccgggtc ctgagttgct cccatccttt atgtccta at tagtaagaag ttccaagctc gctccgggtc ctgagttgct gagatactca agtacacact gtggaagtc agctgttctg gcacagtgag tgaacagctc aggaactcag aaaccaagaa tctgtgtctc ctggaacacag ctcaataa MEDLEETLFE EFENYSYDLD YYSLESDLEE KVQLGVHWV SLVLYCLAFV LGIPGNAIVI P WFTGLKWKKT VTTLWFLNLA IADFTFLFL PLYISYVAMN FHWPFGIWLC KANSFTAQLN MFASVFLTV ISLDHYIHLI HPVLSHRHRT LKNSLIVIF IWLLASLIGG PALYFRDIVE FNNHTLCYNN FQKHPDLTL IRHVLTWVK FIIGLYFPLL TMSICYLCLI FKVKKRTVLI SSRHFWTILV VVAFVVCWT PYHLFSIWEL TIHNSYSHH VMOAGIPLST GLAFLNSCLN PILYVLISK FQARERSVA EILKYTLWEV SCSGTVSEQL RNSETKNLCL LETAQ atggcctcat cgaccactcg gggcccccag gtttctgact tatttcttg gctgccgccc A gcggtcaca ctcccgcac caagagcga gaggcctcg cgggcaacgg gtcggtggct ggcgcgagc ctccagcgt cagccctc cagagcctgc agctggtgca tcagctgaag gggctgacg tgcgtctc cagcgtcgtg gtggtcgtgg gctggtggg caactgcctg ctggtgctg tgatgcgcg ggtgcgcgg gtcacacacg tgacgaact cctcatcgcc aacctggcct tgcgcgacgt gctcatgtgc accgcctgcg tgcgctcac gctggcctat	Homo sapiens

245	3850	G Protein- Coupled Receptor 10 (GPR10)	NP_004239.1	<p>gacctcagc cagcgggctg ggtgttcggc ggcgccctgt gccacctggt cttcttctctg  cagccgggtca cgtctatgt gtcggtgttc acgtccacca ccatcgaggt ggaccgtac  gtcgtgctgg tgcacccgt gaggcgccgc atctcgctgc gccctcagcg ctagctgtg  ctggccatct ggcgctgtc cgcggtgctg gcgctgccc cgcgctgca cacctatcac  gtggagctca agccgacga cgtgcgcctc tgcgagagt tctggggctc ccaggagcgc  cagcgccagc tctacgctg ggggctgctg ctggtcacct acctgtccc tctgtggtc  atctctctgt cttacgtccg ggtgtcagt agctccgca accgctggt gccgggctgc  gtgacccaga gccaggccga ctgggaccgc gctcgccgc ggccacctt ctgcttctg  gtggtggtcg tgggtggtt cgcgctctgc tggctgccc tgcagctctt caacctgctg  cgggacctcg accccacgc catcgacct tacgctttg ggtggtgca gctgctctgc  cactggtcg ccatgagttc ggcctgctac aacccctca tctacgctg gctgcacgac  agcttccgc aggagctgc caaactgtg gtcgcttggc ccgcaagat agcccccat  ggccagaata tgaccgtcag cgtggtcatc tga</p>	Homo sapiens
				<p>MASSTRGPR VSDLFGLPP AVTTPANQSA EASAGNSVA GADAPAVTPF QSLQLVHQLK P  GLIVLLYSW VVGLVGNCL LVLVIARVR LHNVTNFLIG NLALSDVLMC TACVPLTLAY  AFEPGRGVFG GGLCHLVFFL QPVTVVSVF TLTTIAVDY VLVHPLRR ISRLSAYAV  LAIWALSAYL ALPAAVHTYH VELKPHDVRL CEEFWGSQER QRQLYAWGLL LVTYLLPLLV  ILLSYVRVSV KLRNRVPGC VTQSQADWDR ARRRTECLL VVVVVVFAVC WLPLHVFENLL  RDLDPHAIDP YAFGLVQLIC HMLAMSSACY NPFIYAWLHD SFREELRKL VAWPRKIAPH  GQNMVSVVI</p>	
246	3851	G Protein- Coupled Receptor GPR12	NM_005288	<p>atgaatgaag acctgaaggt caatttaagc gggctgcctc gggattattt agatgccgct A  gctgcggaga acatctcgc tgcgtctcc tcccgggttc ctgccgtaga gccagagcct  gagctcgtag tcaacccctg ggacattgtc ttgtgtacct cgggaacct catctcctgt  gaaaatgccca ttgtggtcct tatcatcttc cacaacccca gcctcgagc acctatgttc  ctgctaatag gcagcctggc tcttgccagc ctgctggcgc gattggact catcaccaat  ttgttttttg cctacctgct tcagtcagaa gccaccaagc tggtcacgat cggcctcatt  gtcgctcttt tcttgctc tcactgcagc ttgtggtga tcaactgtga ccgtacctc  tcaactgtact acgctctgac gtaccattcg gagaggacgg tcacgtttac ctatgtcatg  ctcgtcatgc tctgggggac ctccatctgc ctggggctgc tgcccgtcat ggcctggaac  tgccctccgag acgagtcac ctgcagcgtg gtcagaccgc tcaccaagaa caacgcggcc  atcctctcgg tgccttctct cttcatgttt gcgctcatgc ttcagctcta catccagatc  tgtaagattg tgatgaggca cgcctcatg atagcctgc agcacactt cctggccacg  tcgcactatg tgaccacccg gaaagggtc tccaccttg ctatcatcct gggagcgttt  gctgcttggc ggatgccttt cacctctat tcttctgatg cggattacac ctaccctcc  atctatacct agccacctt cctgcccgc acctacaatt ccatcatcaa cctgtcata  tatgctttca gaaaccaaga gatccagaaa gcgctctgc tcatttgcg cggctgcac  ccgtccagtc tcgcccagag agcgcgctcg cccagtgtg ttag</p>	Homo sapiens
247	3851	G Protein- Coupled Receptor GPR12	NP_005279.1	<p>MNEDLKVNL GLPRDYLDAA AENISAASV SRPVAPEPEP ELVNPWDIV LCTSGTLISC P  ENAIIVVLIIF HNPSLRAPMF LLIGSLALAD LLAGIGLITN FVFAYLQSE ATKLVTLGLI  VASFSASVCS LLAITVDRL SLIYALTYHS ERTVTFTYVM LVMLWGTSC LGLLPVGMWN  CLRDESTCSV VRPLTKNAA ILSVSFLFMF ALMLQLYIQI CKIVMRHAHQ IALQHHFLAT</p>	Homo sapiens

248	3852	CX3C Chemokine Fractalkine Receptor 1	NM_001337	SHYVTRKGV STLAILGTF AACWMPFTLY SLIADYTPS IYTYATLLPA TYSINPVI YAARNQEIQK ALCLICGCI PSSLAQRARS PSDV ggggcagatc cagattccct ttgcagtcga cgccaggcct tcaccatgga tcagttccct A gaatcagatga cagaaaactt tgatcagatg gatttgctg aggcctgtta tattggggag atcgtggtct ttgggactgt gttcctgtcc atatttact ccgtcatctt tgccattggc ctggtgggaa atttgtgtt agtgtttgct ctacacaaca gcaagaagcc caagagtgtc accgacattt accctcctgaa cctggccttg tctgatctgc tgtttgtagc cactttgccc ttctggactc actatttgat aaatgaaaaa ggcctcaca atgccatgtg caaattcact accgcttctt tcttcactgg ctttttttga agcatattct tcatcaccgt catcagcatt gataggatcc tggccatcgt cctggccgcc aactccatga acaaccggag cgtgcagcat ggcgtcaca tcagcctagg cgtctgggca gcagccattt tgggtggcag ccttcaggaa atgttcacaa agcagaaaga aatgaaatgc cttggtgact accccagggt ccttcaggaa atctggcccg tgctcggcaa tgtgaaaca aattttcttg gcttctact cccctgctc attatgagtt attgtactt cagaatcacc cagacgctgt ttctctgcaa gaaccacaag aaagccaaaag ccattaaact gatccttctg gtggtcactg tgttttctct cttctggaca ccctacaacg ttatgatatt cctggagacg cttaaagctct atgacttctt tccagttgt gacatgagga aggatctgag gctggccctc agtgtgactg agacgggttg attagccat tgttgccctga atcctctcat ctatgcattt gctggggaga agttcagaag atacctttac cacctgtatg gaaaatgcct ggctgtcctg tgtgggcgt cagtcacgt tgatttctcc tcacttgaat cacaaggag caggcatgga agtgttctga gcagcaattt tacttaccac acgagtgatg gagatgcatt gctccttctc tgaagggaat ccaaaagcct tgtgtctaca gagaacctgg agttcctgaa cctgatgctg actagtggag aagatttttg ttgttatttc ttacaggcac aaaaatgag acccaatgca cacaatacaa cctagagtg ttgttgagaa ttgtgctcaa aatttgaaga atgaacaaat tgaactcttt gaatgacaaa gagtagacat ttctcttact gcaaatgtca tcagaacttt ttggtttgca gatgacaaa attcaactca gactagtta gttaaatgag ggtggtgaat attgttcata ttgtggcaca agcaaaaag gtgtctgagc cctcaaagt aggggaacca gggcctgagc caagcta MDQFESVTE NFEYDDLAE CYIGDIVVFG TVFLSIFYSV IFAIGLVGNL LVWFALTNSK P KPKSVTDIYL INLALSDLF VATLPFWTHY LINEKGLHNA MCKFTTAFFF IGFFGSIFFI TVISIDRYLA IVLAANSMMN RTVQHGVTIS LGWAAAILV AAPQFMFTKQ KENECLGDYP EVLQEIWPVL RNVTNFLGF LLPLIMSYC YFRIQTLES CKNHKKAKAI KLILLVVIVF FLFWTPPNVM IFLETCLKLYD FFPSCDMRKD LRLALSVTET VAFSHCCCLNP LIYAFAGEKF RRYLHYLYGK CLAVLCGRSV HVDFSSSESQ RSRHGSVLSS NPTYHTSDGD ALLLL atggaccag agaaacttc agttatttg gattattact atgctacgag cccaaactct A gacatcagg agaccactc agaccactc ccatgttctc tacacctctg tcttctctcc agtcttttac acagctgtgt tctgactgg agtgcctggg aacctgttct tcatgggagc gttgcatttc aaacccggca gccgaagact gatcgacatc ttatcatca atctgctgc ctctgacttc atttttcttg tcacattgcc tctctgggtg gataaagaag catctctagg actgtggagg acgggtcctt tctgtgcaa agggagctcc tacatgatct ccgtaaatat gcaactgcagt gtcctcctgc tcaattgcat gagtgttgac cgctacctgg ccattgtgtg gccagtcgta tccaggaaat tcagaaggac agactgtgca tatgtagtct gtgccagcat ctggtttatc	Homo sapiens
249	3852	CX3C Chemokine Fractalkine Receptor 1	NP_001328.1	gtgtctgagc cctcaaagt aggggaacca gggcctgagc caagcta MDQFESVTE NFEYDDLAE CYIGDIVVFG TVFLSIFYSV IFAIGLVGNL LVWFALTNSK P KPKSVTDIYL INLALSDLF VATLPFWTHY LINEKGLHNA MCKFTTAFFF IGFFGSIFFI TVISIDRYLA IVLAANSMMN RTVQHGVTIS LGWAAAILV AAPQFMFTKQ KENECLGDYP EVLQEIWPVL RNVTNFLGF LLPLIMSYC YFRIQTLES CKNHKKAKAI KLILLVVIVF FLFWTPPNVM IFLETCLKLYD FFPSCDMRKD LRLALSVTET VAFSHCCCLNP LIYAFAGEKF RRYLHYLYGK CLAVLCGRSV HVDFSSSESQ RSRHGSVLSS NPTYHTSDGD ALLLL atggaccag agaaacttc agttatttg gattattact atgctacgag cccaaactct A gacatcagg agaccactc agaccactc ccatgttctc tacacctctg tcttctctcc agtcttttac acagctgtgt tctgactgg agtgcctggg aacctgttct tcatgggagc gttgcatttc aaacccggca gccgaagact gatcgacatc ttatcatca atctgctgc ctctgacttc atttttcttg tcacattgcc tctctgggtg gataaagaag catctctagg actgtggagg acgggtcctt tctgtgcaa agggagctcc tacatgatct ccgtaaatat gcaactgcagt gtcctcctgc tcaattgcat gagtgttgac cgctacctgg ccattgtgtg gccagtcgta tccaggaaat tcagaaggac agactgtgca tatgtagtct gtgccagcat ctggtttatc	Homo sapiens
250	3853	G Protein-Coupled Receptor GPR15	NM_005290	gtgtctgagc cctcaaagt aggggaacca gggcctgagc caagcta MDQFESVTE NFEYDDLAE CYIGDIVVFG TVFLSIFYSV IFAIGLVGNL LVWFALTNSK P KPKSVTDIYL INLALSDLF VATLPFWTHY LINEKGLHNA MCKFTTAFFF IGFFGSIFFI TVISIDRYLA IVLAANSMMN RTVQHGVTIS LGWAAAILV AAPQFMFTKQ KENECLGDYP EVLQEIWPVL RNVTNFLGF LLPLIMSYC YFRIQTLES CKNHKKAKAI KLILLVVIVF FLFWTPPNVM IFLETCLKLYD FFPSCDMRKD LRLALSVTET VAFSHCCCLNP LIYAFAGEKF RRYLHYLYGK CLAVLCGRSV HVDFSSSESQ RSRHGSVLSS NPTYHTSDGD ALLLL atggaccag agaaacttc agttatttg gattattact atgctacgag cccaaactct A gacatcagg agaccactc agaccactc ccatgttctc tacacctctg tcttctctcc agtcttttac acagctgtgt tctgactgg agtgcctggg aacctgttct tcatgggagc gttgcatttc aaacccggca gccgaagact gatcgacatc ttatcatca atctgctgc ctctgacttc atttttcttg tcacattgcc tctctgggtg gataaagaag catctctagg actgtggagg acgggtcctt tctgtgcaa agggagctcc tacatgatct ccgtaaatat gcaactgcagt gtcctcctgc tcaattgcat gagtgttgac cgctacctgg ccattgtgtg gccagtcgta tccaggaaat tcagaaggac agactgtgca tatgtagtct gtgccagcat ctggtttatc	Homo sapiens

3853 251 G Protein-  
Coupled  
Receptor  
GPR15

NP\_005281.1

Homo  
sapiens

tactgtcctgc tggggttgcc tactttctg tccaggagc tcaagctgat tgatgataag  
ccatactgtg cagagaaaaa gcaactcca attaaactca tatgtccct ggtggcctta  
atttcacct ttttgtccc tttgtgagc attgtgacct gctactgtg cattgcaagg  
aagctgtgtg ccattacca gcaatcagga aagcacaaca aaaagctgaa gaaatctata  
aagatcatct ttattgtgtg ggcagccttt ctgtctcct ggctgacct caatactttc  
aagttcctgg ccattgtctc tgggtgctgg caagaacact attaccctc agctattctt  
cagcttggtg tggaggtgag tggacccttg gcatctgcca acagctgtgt caaccctttc  
attactata tcttcgacag ctacatccgc cgggccattg tccactgctt gtgaccttgc  
ctgaaaaact atgactttgg gactagcact gagacatcag atagtacct cactaaggct  
ctctccacct tcattcatgc agaagatttt gccaggagga ggaagaggtc tgtgtcactc  
taa

taa

3854 252 G Protein-  
Coupled  
Receptor  
GPR18

NM\_005292

Homo  
sapiens

gaaagagaca aagcagcaat taaagtccgc ccagcaccaa ctccgacgcc aagcgttaca A  
ctggaaacta ctttttaag caacaaaga gtctaaaca aaatacaaca tttcttaaat  
acactgttc cagaaagagc tattttaaca gaagcaactc aaagatatcc ctccgacaga  
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agtatcatgc ctaccaaaca gctgtaaaat gatcacacctt aacaatacag atcaacctgt  
cccttttaac agctcacatc cagatgaata caaaattgca gccctgtct tctatagctg  
tatcttcata attgattat ttgttaacat cactgcatta tgggttttca gttgtaccac  
caagaagaga accacggtaa ccatctatat gatgaatgtg gcattagtgg acttgatat  
tataatgact ttacctttc gaatgtttta ttatgcaaaa gatgaatggc cattggaga  
gtactctctg cagattcttg gagctctcac agtgttttac ccaagcattg ctttatggct  
tcttgctttt attagtctg acagatacat ggccattgta cagccgaagt acgcaaaaga  
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cacgaccacc cctctgctac tgctctataa agaccagat aaagactcca ctccgccac  
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actgacattt ttttcttga ttcccttgtt catcatgatt ggggtgctact tggcattat  
tcataatctc cttcacggca ggacgtctaa gctgaaaccc gctgaaagg agaagtcctat  
aaggatcatc atcacgtcg tggcgaggt gctgctctgc tttatgacct tccacatctg  
tttcgctttc ctgatgctgg gaacggggga gaacagttac aatccctggg gageccttac  
caccttctc atgaacctca gcacgtgtct ggatgtgatt ctctactaca tegtctcaaa  
acaatttcag gctcagatca ttagtgtcat gctataacct aattacctc gaagcatgag  
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atgaataata aggttctttc atttcaatcc catcaaaatt cacttacta actactctgg  
cgtcaaatgga tattctgtat aatactatca agtccctttt ctcttgaaaa aataaattca  
ttatcttcat tttaaaaaa aaaaaaaa

[illegible]

257	3856	G Protein- Coupled Receptor GPR2/CCR10	NP_057686.1	<p>ccacctgctc cagctggccc tggcggacct cttgtggcc ctgacttgcc ccttcgggcg</p> <p>agcaggggct cttcaggct ggagtctggg aagtggccac tggcggacca tctctggcct</p> <p>ctactcggcc tcttccacg ccggcttctt cttcctggcc tgtatcagcg ccgaccgcta</p> <p>cgtggccatc gcgcgagcg tccagcggg cccgcgccc tccactcccg gccgcgcaca</p> <p>cttggctccc gtcctcgtg gctgctgtc actgctctg gcgtggcctg cgtgtctctt</p> <p>cagccaggat gggcagcggg aaggccaacg acgtgtgcg ctcattctcc ccgaggggcct</p> <p>cacgcagacg gtgaaggggg cgaagcggct ggccgagggt gccctgggt tgcgctgccc</p> <p>gctgggcgtc atggtagcct gctacgcgct tctggccgc acgtgctgg ccgccagggg</p> <p>gcccgagcgc cggcgtgcg tgcgctcgt ggtggctctg gtggcgccct tctgtgtgct</p> <p>gcagctgccc tacagcctcg cctgctgct ggatactgc gatctactg ctgcccgcga</p> <p>gcggagctgc cctgccagca aacgcaagga tgtcgcacty ctggtgacca gcggttggc</p> <p>cctgcggcgc tgtggcctca atccgctct ctacgccttc ctggcctgc gcttccgcca</p> <p>ggacctgcgg aggtgctac ggggtgggag ctgcacctca ggccctcaac cccgcgcggg</p> <p>ctgccccgcg cggccccgc tttcttctg ctacgctccc acggagaccc acagtctctc</p> <p>ctgggacaaac taggctgcg aatctagagg agggggcagg ctgagggtcg tgggaaaggg</p> <p>gagtaggtgg gggaacactg agaaagaggc agggacctaa agggactacc tctgtgcctt</p> <p>gccacattaa attgataaca tggaaatgaa aaaaaaaa aaaa</p> <p>LVLAHLAAR RAARSPTSAH LLQLALADLL CYKADVQAFS RAFQPSVSLT VAALGLAGNG P</p> <p>SASFHAGFLF LACISADRYV AIARALPAGP RPSTPGRAHL VSVIVWLLSL LIALPALFLS</p> <p>QDQREGQRR CRLIFPEGLT QTVKGASAVA QVALGFALPL GVMVACYALL GRTLLAARGP</p> <p>ERRRALRVV ALVAAFVVLQ LPYSLALLD TADLLAARER SCPASKRKDV ALLVTSGLAL</p> <p>ARCGLNPLY AFLGLRFRQD LRLLRGSS PSGPQRRGC PRRPRLSSCS APTETHSLSW</p> <p>DN</p>	Homo sapiens
258	3857	G Protein- Coupled Receptor GPR20	NM_005293	<p>atgcctctcg tgtctccagc gggggcctcg gccggggcag tccccaatgc caccgacgtg A</p> <p>acaacagtgc ggaccaatgc cagcgggctg gaggtgccc tgttccacct gtttcccgg</p> <p>ctggacgagg agctgcatg cacttccca gccctgtgcy tggcgctgat ggcggtgcac</p> <p>ggagccatct tctggcagg gctggtgctc aacgggctgg cgtgtacgt cttctgctgc</p> <p>cgcacccggg ccaagacacc ctacgtcatc tacaccatca acctggtggt gaccgatcta</p> <p>ctggtagggc tgtccctgcc cagcgcctc gctgtgtact acggcgccag gggctgctg</p> <p>cgtgtgctt tcccgcacgt cctcggttac ttcctcaaca tgcactgctc catcctctc</p> <p>ctcacctgca tctgcgtgga ccgctacctg gccatcgtgc ggcccgaagc tcccgcggcc</p> <p>tgcggccagc ctgcctgtgc cagggccgtg tgcgcttctg tgtggctgcy cgcgggtgccc</p> <p>gtcacctctg cgggtgctgg cgtgacagcg agccggccct tgtgcctgt cttgcgctg</p> <p>actgtcctgg agttcctgct gcccctgctg gtcatcagcg tgtttaccgg ccgcatcatg</p> <p>tgtgcactgt cgcggccggg tctgctccac cagggtgccc agcgcgcgt gcgggcccag</p> <p>cagctcctgc tcacggtgct catcatcttt ctgctgctt tcacgcccct ccacgcccgc</p> <p>caagtggccg tggcgtgtg gcccgacatg ccaaccaca ctagcctcgt ggtctaccac</p> <p>gtggccgtga cctcagcag cctcaacagc tgcattggacc ccatcgtcta ctgcttctc</p> <p>accagtggct tccaggccac cgtccgagcg ctcttcggcc agcacggaga gcgtgagccc</p> <p>agcagcgggt acgtggtcag catgcacagg agctccaaagg gctcaggccc tcatcacatc</p>	Homo sapiens

259	3857	G Protein- Coupled Receptor GPR20	NP_005284.1	ctcagtgccg gccctcacgc cctcaccacg gccctggcta atggggccga ggcttag	Homo sapiens
				MPSPAPGSPS AGAVPNATAV TTVRTNASGL EVPLFHLFAR LDEELHGTFP GLCVAMAVH P GAIFLAGIVL NGLALYVFC RTRAKTPSVI YTNILVVTDL LVGLSLPTRF AVYGARGCL RCAPFHVLYG FLNMHCSILF LTCICVDRL ALVRPEAPAA CRQPACARAV CAFWLAAGA VTLSLVLTG SRPCRVFAL TVLEFLPLL VISVFTGRIM CALSRPGLLH QGRQRVRAM QLLLTVLIIF LVCFTPFHAR QVAVALWPDH PHTSLVVYH VAVTLSSLNS CMDPIVYCFV TSGFQATVRG LFGQGEREP SSGDVSMHR SSKGSRHHI LSAGPHALTQ ALANGPEA	
260	3858	G Protein- Coupled Receptor GPR21	NM_005294	atgaactcca cctggatgg taatcagagc agccaccctt ttgacctctt ggcattgggc A tatttgaaa cctgcaattt ttgacctttg gaagtattga ttattgtctt tctaactgta ttgattattt cctggcaaat tatccagact atggcataatg ctgacctttt tgttgggggtg catcacacta caagtattt ttacctctt atcacctctc catcaccccc ttccagtaga ggagtcctg agctgcgtgg tccctctt tttaggttt ttagtatca gttctgaaga gcgtctccat ggccttcttg acttgccaga tatttggtt ttagtatca atacattgcc attataaac ctttaacctt taatactctg gcctgtatca gcatgtatg cctgtgtatt ttctgtatt ggcctatctc gacctgggtc gttacaccct ggagactacg cctgtgtatt ttctgtatt ttctgtatt ggcctatctc gacctgggtc ttctgcctt cctttttcca cctgggcaaa cctggatctc atggagatgt gtttcagtg tgtgcggagt cctggcacac cgtacctctc ttccacctgt tcatcgtgat gatgttat gccccagcag cctttattgt ctgcttcacc tatttcaaca tcttccgcat ctgccaacag cacacaaagg atatcagcga aaggcaagcc cgtctcagca gccagagtgg ggagactggg gaagtgcagg cctgtctcga taagcgtat gccatggtcc tgttcgaat cactagtgt ttttacatcc tctggttgcc atatatcacc tacttctgt tggaaagctc cactggccac agcaaccgct tgcatacct cttgaccacc tggcttgcta ttagtaacag ttcttgcaac tgtgtaattt atagtctctc caacagtga ttccaaagag gactaaagcg cctctcaggg gctatgtga cttctgtgc aagtcagact acagccaaag acccttacac agttagaagc	Homo sapiens
261	3858	G Protein- Coupled Receptor GPR21	NP_005285.1	EVLIIVFLTV LIISGNIIVI FVFHCAPLLN P HHPLPVEESL TCQIFGFVVS VLKSVSMASL FLIWLYSTLV FLPSFFHWGK PGYHGDVFWQ YFNIFRICQO HTKDISERQA RFSSQSGETG YFLESSTGH SNRFASFLT WLAISNSFCN TANDPYTVRS KGPLNGCHI atgcagctctg aatctaacat tacagtgcga A taccataacc tatcatactc gttaaacttt gaaattgtgt tgggacttgg cagcaacctc aacttaatca actctgtcag taacattatt atgttgatg atttgtgtgg gatgtattcc tctaactata actgctctca ttgtctgtt ccatgaggct atcaacgttt ttgtatcac ttggacaga atbtgacaa ttggcagagc tgaatgtta tctttctga	Homo sapiens
262	3859	G Protein- Coupled Receptor GPR22	NM_005295	atgtgttttt cctccattct ggaatacaac atgcagctctg aatctaacat tacagtgcga A gatgacattg atgacatcaa caccataatg taccataacc tatcatactc gttaaacttt caagtgtctc tcaccggatt tcttatgta tccataatg gaaattgtgt tgggacttgg cagcaacctc actgtattgg tactttactg catgaaatcc aacttaatca actctgtcag taacattatt acaaatgaat ttcattgact tgcgttaata atttgtgtgg gatgtattcc tctaactata gttatccttc tgccttccat ggagagtaac actgctctca ttgtctgtt ccatgaggct tgtgtatctt ttgcaagtgt ctcaacagca atcaacgttt ttgtatcac ttggacaga tatgacatct ctgtaaaacc tgcaaaccca atbtgacaa ttggcagagc tgaatgtta atgatataca ttggattttt tcttttttc	Homo sapiens



263	3859	G Protein- Coupled Receptor GPR22	NP_005286.1	<p>           ttttcagtc ttcaaatggtg aaatacctgg gaaacaaga cacttttatg tgtcagtaca            aatgaatact acactgaact gggaatgtat tatcacctgt tagtacagat cccaatattc            tttttcactg ttgtagtaat gttaatcaca tacaccaaaa tacttcaggc tcttaatat            cgaataggca caagattttc aacagggcag aagaagaaag gcagtgggtg gagaaatgta            tctctaacca cacaacatga ggctacagac atgtcacaaa tccggcgagc tgtgaaacga            gtctttgggtg taagaacttc agtttctgta ataattgccc tccggcgagc tgtgaaacga            caccgtgaac gacgagaaag acaaaagaga gtcttcagga tgtctttatt gattatttct            acatttcttc tctgctggac accaatttct gttttaataa ccaccatttt atgtttaggc            ccaagtgacc ttttagtaaa attaagattg tgttttttag tcatggccta tggaaacaact            atatttcacc ctctattata tgcattcact agacaaaaat ttcaaaagggt cttgaaaaagt            aaaatgaaaa agcgagttgt ttctatagta gaagctgac ccctgcctaa taatgctgta            atacacaact ctgggataga tcccaaaaga acaaaaaaaa ttacctttga agatagtga            ataagagaaa aacgtttagt gcctcaggt gtacacagact ag            MCSPFILEIN MQSESNITVR DDIDDINTNM YQPLSYPLSF QVSLTGFLML EIVLGLSNL P            TVLVLCMKSLNINSVSNII TMNLHVLVDVI ICVGCIPLTI VILLLSLESN TALICCFHEA            CVSFASVSTA INVFAITLDR YDISVKPANR ILTMGRAVML MISIWIFSFF SFLIPFIEVN            FFSLOSNTW ENKTLICVST NEYTELGMY YHLLVQIPIF FTTVVVMLIT YTKILQALNI            RIGTRFSTGQ KKKARKKTI SLTQHEATD MSQSSGGRNV VFGVRTSVSV IIALRRVAKR            HRERERQKR VFRMSLLIIS TFLLCWTPIS VLNTILCLG PSDLLVKLRL CFLVMAYGTT            IFHPLLYAFT RQKFQKVLKS KMKKRVVSIV EADPLPNNAV IHNSWIDPKR NKKITFEDSE            IREKRLVPQV VTD         </p>	Homo sapiens
264	3860	G Protein- Coupled Receptor SLC/MCH1	NM_005297	<p>           atgttgtgtc cttccaagac agatgggtca gggcactctg gtaggattca ccaggaaact A            catggagaag ggaagaagga caagattagc aacagtgaag ggaggagaa tggtaggaga            ggattccaga tgaacggtgg gtcgctggag gctgagcatg ccagcaggat gtcagtcttc            agagcaaaagc ccatgtcaaa cagccaacgc ttgctccttc tgtccccagg atcacctcct            cgcacgggga gcatctccta catcaacatc atcatgcctt cgggtgttcgg caccatctgc            ctctcgggca tcatcgggaa ctccaacggtc atcttcgagg tctgtaagaa gtccaagctg            cactggtgca acaacgtccc cgacatcttc atcatcaacc tctcggtagt agatctcctc            tttctcctgg gcatgccctt catgatccac cagctcatgg gcaatggggt gtggcacttt            gggagagaca tglgcacctt catcacggcc atggatgcca atagtcagtt caccagcacc            tacatcctga ccgcatggc cattgaccgc tacctggcca ctgtccacc cactctctcc            acgaagtcc ggaagccctc tgtggccacc ctggtgatct gcctcctgtg ggccctctcc            ttcatcagca tcacctctgt gtggctgtat gccagactca tcccctccc aggaggtgca            gtgggctggc gcatacgctt gcccaccca gacactgacc tctactggtt caccctgtac            cagtttttcc tggccttttc cctgcctttt gtggtcatca cagccgata cgtgaggatc            ctgcagggca tgaagtcctc agtggccccc gctcccccgc gcagcatccg cgtgcggaca            aagagggtga cccgcacagc catcgccatc tgtctggtct tctttgtgtg ctgggaccc            tactatgtgc tacagctgac ccagttgttc atcagccgcc cgacctcac ctttgtctac            ttatacaatg cggccatcag ctgggctat gccacagct gcctcaacc ctttgtgtac            atcgtgtctc gtgagacgtt ccgcaaacgc ttggtcctgt cgggtgaagcc tgcagccag            gggcagcttc gcgctgtcag caacgctcag acggtgacg aggagaggac agaaagcaaa         </p>	Homo sapiens

[illegible]

269	3862	G Protein- Coupled Receptor GPR3	NP_005272.1	gacctcacct actattcaga gacaacagtg acacggacct atgtgatgct ggcttagtg tgggaggtg cctgggacct ggggtgctg ggggtgctg cctggatggc ctgacacat gtggcggtg ttatccact tccaagaacc atctgtagt tctggccatt gccttcttca tgggtgttgg catcatgtg cagctctacg ccaaatctg ccgcatctc tgccgccatg ccagcagat tgcccttcag cggcacctgc tgcctgctc ccaatctg gccaccgca agggcatgc cacactggc gtgggtgctg gagccttgc cgcctgctg ttgcccttca ctgtctactg cctgctgggt gatgccact ctccacctat ctacacctat cttaacctgc tccctgccac ctacaaactc atgatcaacc ctatcatcta cgccttccgc aaccaggatg tgcagaaagt gctgtggct gctgtgctg gctgttctc ttccaagatc ccctccgat ccgctcccc cagtgatgc tag VVAIIIVGTPA FRAPMFLV LGSLVHFAAV FCIGSAEMSL VLVGVLAFAF TASIGSLAI TVDRYLSLYN ALTYSETTV TRTYVMLALV WGGALGLGLL PVLAWNCLDG LTTCGVVYPL SKNHLVLA I AFFMVFGLM QLYAQICRIV CRHAQQIALQ RHLPLASHYV ATRKGIATLA VVLGAFAACW LPFTVYCLLG DAHSPLYTY LTLPATYNS MINPIIYAFR NQDVQKVLWA VCCCSSSKI PFRSRSPSDV	Homo sapiens
270	3863	G Protein- Coupled Receptor GPR31	NM_005299	atgccattcc caaactgctc agccccagc actgtggtg ccacagctgt ggggtgcttg A ctggggtgg agtgtgggt ggtgtgctg ggcacgcgg tggcgctgtg gaccttctg ttccgggtca ggggtggaa gccgtacgt gtctacctgc tcaacctggc cctggctgac ctgctgttg ctgctgctc gcttctctg ccgcttctt acctgacct ccaggcttg catctggcc gtgtgggtg ctgggcccc gcttctctg tggacctcag ccgacgggtg gggatggct tctggcccgc cgtggcttg gaccgtacc tccgtgtgtt ccacctcgg cttaaggta acctgctgc tctcaggcg gccctgggg tctcgggctt cgttggctc ctgatggtcg cctcactcg ccgggcttg ctcatctctg agccgcctc gaactccacc agtgccaca gtttctact cagggcagac ggtctcttca gcatcatctg gcaggaagca ctctcctgc ttcagttgt cctccccctt gctctcatg tgttctgcaa tgcaggcatc atcagggtc tccagaaaag actccgggag cctgagaaac agcccaagct tcagcgggcc caggcactgg tcacctgtg ggtgtgctg ttgtctctg gcttctgct cgtcttctg gccagatcc tgatgcacat ctccagaat ctggggagct gcagggccct ttgtgcagt gctcatact cggatgtcac gggcagctc acctacctg acagtgtct caacccctg gtatactgt tctccagccc cacttcagg agctctatc ggagggtctt ccacacctc cgaggcaaa ggcaggcagc agagccccca gatttcaacc ccagagactc ctattctga MPFPNCAPS TVVATAGVL LGLECGGLL GNAVALWTFEL FRVRVWKPYA VYLNLALAD P LLLAACPFL AAFYLSLQAW HLGRVGCWAL RFLDLRSRV GMAFLAAVAL DRYLRVVR LKVNLLSPQA ALGVSLVWL LMVALTCPGL LISEAAQNST RCHSFYSRAD GFSFIWQEA LSCLOFLPF GLIVFCNAGI IRALQKRLRE PEKOPKQRA QALVTLVVL FALCFPCFL ARVLMHIFQN IGSCRALCAV AHTSDVTGSL TYLHVVNPV VYCFSSPTFR SSYRRVFHTL RGKQAAEPP DFNPRDSYS	Homo sapiens
271	3863	G Protein- Coupled Receptor GPR31	NP_005290.1	ctggtagacct tacttatctc tgttgcttcc tggggctcta ggaatgccca gcactccac A ccacattgcc tgaacttcc aacactccct agctgcgtg tgcctatct caacacttcc tcatgtattt cttgtgtctt ctagaacatt ccccgccat tattacttca atatggctac	Homo sapiens
272	3864	G Protein- Coupled Receptor	NM_005282		Homo sapiens

GPR4

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acacactgac tccatacata acctcttga aaacctctt tattaatctc accatctcc  
agacttccct cctgtcataa tccatccct tccctctca agctctgcc  
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cagcctccac ctctgggt ctccagcgt ctccacat cagcctccc agtagctggg  
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273	3864	G Protein-Coupled Receptor GPR4	NP_005273.1	ttcacaggcg tcaccataca caagtaataa aaaaatatgt aatgtttgga attgct MGNHTWEGCH VDSRVDHLFP PSLYIFVIGV GLPTNCLALW AAYRQVQQRN ELGVYLMNLS P IADLLYICTL PLWVDYFLHH DNWIHGPSC KLFGFIFYTN IYISIAFLCC ISVDRLAVA HPLRFARLRR KTVAVAVSSV VWATELGANS APLFHDLEFR DRYNHTFCFE KPFMEGWAV MNLVRFVGF LFPWALMLLS YRGILRAVRG SVSTERQEKA KIKRLALSLL AIVLVCFAPY HVLILSRSAI YLGRPWDCGF EERVESAYHS SLAFTSLNCV ADPILYCLVN EGARSDVAKA LHNLRLFLAS DKPQEMANAS LTLETPLTSK RNSTAKAMTG SWAATPPSQG DQVQLKMLPP AQ	Homo sapiens
274	3866	G Protein-Coupled Receptor GPR6	NM_005284	atgaacgcga gcgcgcctc gctcaacgac tcccaggtgg tggtagtgcc ggcgaagga A gcggcgccgg cggccacagc agcagggggg cggacacgg gcgaatgggg accccctgct gcggcgccctc taggagccgg cggcgagctc aatgggtctc tggagctgtc ctgcagctg tcggctgggc caccgggact cctgctgcca gcgtggaatc cgtgggacgt gctcctgtgc gtgtcgggga cagtgatgc tggagaaac gcgtgggtgg tggcgctcat cgcgtccact ccggcgctgc gcacgcccc gtctgtgctg gttagcagcc tggccaccgc tgacctgttg gcgggctgtg gctcatctt gcactttgtg ttccagtact tggcgccctc ggagactgtg agtctgctca cggtgggctt cctcgtggcc tctctgcgg cctctgtcag cagcctgctg gccattacgg tggaccgcta cctgtccctg tataacgcg tcacctatta ctgcgcggc accctgttgg gcgtgcacct cctgcttggc gccacttggc cctgttccct aggcctgggg ctgctgcccc tgctgggctg gaactgctg gcagagcgcg ccgcctgcag cgtggctgcg ccgctggcgc gcagccacgt ggctctgtc tccgcgcctc tcttcattgt cctcggcatc atgctgcacc tgtactgtcg catctgccag gtggtctggc gccacgcga ccagatcgcg ctgcagcagc actgcctggc gccaccccat ctgcctgcca ccagaaaggg tgtgggtaca ctggctgtgg tgctgggac tttcggcgcc agctggctgc ccttcgccat ctattgctg gtgggcagcc atgaggacc gcggtgtac acttacgcca ccctgctgc cgcacactac aactccatga tcaatcccat catctatgcc tccgcaacc aggagatcca gcgcgcctg tggctcctgc tctgtggctg tttccagtc aaagtgcctc ttcgttccag gtctcccagc gaggtctga	Homo sapiens
275	3866	G Protein-Coupled Receptor GPR6	NP_005275.1	SQVWVAAG AAAATAAGG PDTGEWGPPA AAALGAGGGA NGSLELSSQL P SAGPPGLLLP AVNPWDVLLC VSGTVIAGEN ALVVALIAST PALRTPMFVL VGLATADLL AGCGLIHVF FQYLVPSLV SLLTVGFLVA SFAASVSSLL AITVDRLSL YNALTYYSRR TLGVLHLLA ATWTVSLGLG LLPVLGNCL AERAACSVVR PLARSHVALL SAAFFWVFGI MLHLVVRICQ VWRHAHQIA LQCHCLAPPH LAATRKGVGT LAVVLGTFGA SWLPFAIYCV VGSHEDEAVY TYATLLPATY NSMINPIYA FRNQEIQRAL WLLLCGCFQS KVPFRSRSPS EV	Homo sapiens
276	3867	G Protein-Coupled Receptor GPR7	NM_005285	atggacaacg cctcgttctc ggagccctgg cccgccaacg catcggggcc ggaccggcg A ctgagctgct ccaacgcgtc gactctggcg ccgctgccgg cgcgctggc ggtgctgta ccagttgtct acgcggtgat ctgcgccgtg ggtctggcgg gcaactccgc cgtgctgtac gtgtgtgtgc gggcgcccc catgaagacc gtcaccaacc tgttcatcct caacctggcc atgcgcagc agctcttca cgtggtgctg cccatcaaca tcgccgactt cctgctggg cagtgccctc tcggggagct catgtgcaag ctcatcgtgg ctatcgacca gtacaacacc	Homo sapiens

Homo  
sapiens

P

NP\_005276.1

G Protein-  
Coupled  
Receptor  
GPR7

3867

277

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 tgccccaacc ccttctctata cgccttctcg gacgcccagct tccgcaggaa cctccgcccag  
 ctgataaact gccgcgcgcg agcctga

PLPAPLAVAV PWYAVICAV GLAGNSAVLY  
 LSCSNASTLA PINIADEFLR QWPFGEIMCK LIVAIQYNT  
 TAESRRVAGR TYSAAARVSL AWGIVTLV LPFAVFARLD  
 RASRLYTLVL GFAIPVSTIC VLYTLLCRL HAMRLDSHAK  
 LLCWTPYHLS TVVALTTDLP QTPLVIAISY FITSLTYANS  
 LITCRAAA

Homo  
sapiens

A

NM\_005286

G Protein-  
Coupled  
Receptor  
GPR8

3868

278

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 TGNATFSEP LGFLYVLLPA VYSGICAVGL  
 DGLFTLVLPV NIAEHLQYW PFGEILCKIV  
 RSRHMPWRTY RGAKVASLCV WLGTVLVLP  
 ASRVYTLVIG FVLVCTICV LYTDLLRLR  
 FVLPVCTICV LYTDLLRLR  
 LCVTPHLS VVALTTDLP TPLVISMV  
 LNLVLAFL DNERKFRSI LRC

Homo  
sapiens

P

NP\_005277.1

G Protein-  
Coupled  
Receptor  
GPR8

3868

279

280	3869	G Protein- Coupled Receptor HM74	NM_006018	cgccacttgg ctggagcatt cactaggcga ggcgtccat cggactcact agccgcactc A atgaatggc accatctgca ggaactattt ctgaaatag acaagaagaa ctgctgtgtg ttccgagatg acttcctgct caagtggttg ccgcccgtgt tggggctgga gtttatcttt gggcttctgg gcaatggcct tgccctgtgg attttctgtt tccacctcaa gtccctgaaa tccagccgga ttttctgtt caactggca gtagctgact ttctactgat catctgcctg ccgttcgtga tggactacta tggcggcgt tcagactgga actttggga catcccttg cggctggtgc tcttcattgt tgccatgaac cgcaggga gcatcatctt cctcacggtg gtggcggtag acaggtattt ccgggtggtc catccccc accgcccgtga caagatctcc aattggacag cagccatcat ccttgcctt ctgtgggga tcaactgttg cctaacagtc cacctcctga agaagaagt gctgatccag aatggccctg caaatgtgtg catcagcttc agcatctgcc ataccttcg gtggcagaa gctatgttcc tccctggagt cctcctgccc ctgggcatca tctgttctg ctacgcccga attatctgga gcctgcgga gagacaaatg gaccggcatg ccaagatcaa gagagccatc acctcatca tgggtgtggc catcgtcttt gtcatctgct tcttcccag cgtgtgtgtg cggatccgca tcttctggtt cctgcacact tcgggcacgc agaattgtga agtataccg tcggtggacc tggcgttctt tatcactctc agcttcacct acatgaacag catgctggac cccgtggtg actacttctc cagcccatcc tttcccaact tcttctccac ttgatcaac cgctgcctcc agaggaaatg gacaggtgag ccagataata accgagcac ggcgtcgag ctacacaggg accccaaca aaccagaggc gtccagagg cgttaatggc caactccgtt gagccatgga gccctctta tctgggcccc acctcaata accattccaa gaaggacat tgtcaccaag aaccagcatc tctggagaaa cagttgggct gtgcatcga gtaattcac tggactcggc ctaaggtttc ctggaacttc cagattcaga gaatctgatt taggaaaact gtggcagatg agtgggagac tgggtgcaag gtgtgaccac aggaatcctg gaggaacaga gactaaagt tctaggcatc tgaacttgc ttcatctctg acgctcgag gactgaagt gggcaaatg taggcgttcc tgcagagcag agttggagcc agagatctac ttgtacttg ttggccttct tcccacatct gccctcagact gggggggct cagctcctcg ggtgatctct agcctgcttg tgagctctag cagggataag gagagctgag attggagga attgtgttgc tccctggagga agcccaggca tcattaaca agccagtagg tcacctggct tccgtggacc aattcatctt tcagacaagc tttagagaaa tggactcagg gaagagactc acatgcttgg gtagtatct gtgttccgg tgggtgtaat aggggattag cccagaagg gactgagta aacagtgtta ttatgggaaa ggaatggca ttgctgcttt caaccagca ctaatgcaat ccattcctct cttgtttata gtaatctaag ggttgagcag ttaaacggc ttcaggatag aaagctgttt cccacctgtt tccgtttacc attaaaagg aaacgtgcct ctgccccacg ggtagagggg gtgcacgttc ctcctggttc cttcgcttgt gttctgtac ttacaaaaa tctaccactt caataaattt tgataggaga caaaaaaaa a	Homo sapiens
281	3869	G Protein- Coupled Receptor HM74	NP_006009.1	MNRHLLQDHF LEIDKNCCV FRDDFIKVL PPVLGLEFF GLLGNGLALW IFCHLKSWK P SSRIFLEFLA VADFLLIICL PFVMDYYVRR SDWNFGDIPC RLVLFEFAMN RQGSIFLTV VAVDRFRVW HPHALNKIS NWTAAIISCL LWGITVGLTV HLLKKLLIQ NGPANVCISF SICHTFRWE AMFLLEFLP LGIILFCSAR IWSLRQRQM DRHAKIKRAI TFMVVAIVE VICFESVW RIRIFWLLHT SGTQNCVYR SVDLAFITL SFTYNSMLD PVVYFSSPS FPNFFSTLIN RCLQRKMTGE PDNNRSTSV EITGDPNKTRG APEALMANSG EPWSPSYLGP	Homo sapiens

282	3870	G Protein- Coupled Receptor OGR1	NM_003485	TSNNHKKKGH CHQEPASLEK QLGCCIE	atggggaaaca tcaactgcaga caactcctcg atgagctgta ccacgacca taccatccac A cagacgctgg ccccggtggt ctatgttacc gtgctggtgg tgggcttccc ggccaactgc ctgtccctct acttcggcta cctgcagatc aagggccgga acgagctggg cgtgtacctg tgcaacctga cggtagccga cctctttctac atctgtctgc tggcctttctg gctgcagtag gtgctgcagc acgacaactg gtctcacggc gacctgtcct gccaggtgtg cggcatcctc ctgtacgaga-acatctacat cagcgtgggc ttcctctgct gcatctcgtt ggaccgctac ctggctgtgg cccatccctt cgccttccac cagttccgga cctgaaggc ggcgctcgcc gtcagcgtgg tcatctgggc caaggagctg ctgaccagca tctacttctt gatgcacgag gaggtcatcg aggcagagaa ccagcacgcg gtgtgctttg agcactatccc catccaggca tggcagcgcg ccatcaacta ctaccgcttc ctggtgggct tctcttccc catctgcctg ctgtggcgt cctaccaggg catcctgcgc gccgtgcgcc ggagccacgg caccagaag agccgcaagg accagatcca gccgtgggtg ctacgacccg tggatcatctt cctggcctgc ttctgcccct accacgtgtt gctgctgggt cgcagcgtct ggagggccag ctgcgacttc gccaaaggcg ttttcaacgc ctaccacttc tccctcctgc tcaccagctt caactgcgtc gccgaccccg tgcctactg cttcgtcagc gagaccacc accgggacct ggcccgcctc cgcggggcct gccctggcct cctcacctgc tccaggaccg gccggggccag ggaggcctac ccgctgggtg ccccgaggc ctcgggaaa agcggggccc aggttgagga gccgagctg ttgaccaagc tccaccggc cttccagacc cctaactcgc cagggtcggg cgggttcccc acgggcaggt tggcctag	Homo sapiens
283	3870	G Protein- Coupled Receptor OGR1	NP_003476.1	MGNITADNSS MSCTIDHTIH QTLAPVVYVT VLVGFPPANC LSLYFGYLQI KARNELGVYL P CNLTVDLFY ICSLPFWLQY VLQDNWSHG DLSCQVCGIL LYENIYISVG FLCISVDRI LAVAHPRFH QFRTLKAAG VSVVIWAKEL LSIYFLMHE EVIEDENQHR VCFEHPYIQA WQRAINYYRF LVGFLFPICL LLASYQGILR AVRRSHGTQK SRKDQIQRLV LSTVVFILAC FLPYHVILLV RSVWEASCDF AKGVFNAYHF SLLTSENCV ADPVLVCFVS ETTHRDLARL RGACLAFLTC SRTGRAREAY PLGAPEASGK SGAQGEPEL LTKLHPAFQT PNSPGSGGFP TGRLA	Homo sapiens	
284	3921	Prostacyclin Receptor	NM_000960	agcaagtga ggcacagacg cagggacag gagagcctgg gcaagactgg agagcccaga A cctgggatgg cggattcgtg caggaacctc acctacgtgc ggggctcgtt ggggcccggc accagcacc tgatgttcgt ggcgggtgtg gtgggcaacg ggctggccct ggcatcctg agcgacggc gaccggcgcg cccctggcc cctcctgagc ccggccctgt tgcgtgccta tgcgcgcaac accgacctgc tgggcaccag cttcctgagc cccgcccctgt gcgatgcctt cgccttcgcc agctccctgc tgggcccggc ccgagggcg ccgcctctgt ccatggcctt ggagcgtgc atgacctct tcggccctggc gtccatgctc atcctctttg ccatggcctt ggagcgtgc ctggcgctga gccacccta cctctacgag cagctggagc ggccccgctg cggccgctg gcgctgccag ccattacgc cttctgcgtc cgtcttctgc cgtgcctt cctgggcccag ggccaacacc agcagtactg ccccgagc tgggtcttcc tccgcatgct cgtgggcccag ccggggcgcg ccgcttctc gctggcctac gccggcctgg tggccctgct ggtggctgcc atcttctct gcaacggctc ggtcacctc agcctctgcc gcattgacc ccagcagaag cgccaccagg gctctctggg tccacggcg cgcaccggag aggcagagt ggaccacctg	Homo sapiens	



285	3921	Prostacyclin NP_000951.1 Receptor	atcctgtgg cccatcatgac agtgggtcatg gccgtgtgct cccgtgctct cagcatccgc tgcttcaccc aggtgtgcg cccgtacagc agcagtgaga tgggggaccc ccttgccctc cgcttctacg ccttaaccc catcctggac cccgtggctt tcatcctttt ccgcaaggct gtcttccagc gactcaagct ctgggtctgc tgcctgtgcc tgggctgc ccacggagac tcgcagacac ccccttccca gctcgccctc gggaggaggg acccaagggc cccctctgct cctgtgggaa aggggggag ctgctgtgct ttgtcggtt gggcgaggg gcaggtggag cccttgctc ccacacagca gtcacaggg agcgccgtgg gaaagtcgtc caaagcagaa gccagcgtcg cctgtccct ctgtgacat ttcaagctga cccgtgac tctgcccctgt cttcggggca caggagcccag aaatcaggg acatggctga tggctgcgga tgctggaacc ttggccccc aactctggg ccgacagct gctgtttctc ctggggcagg gcagtcgctg ctggctctgg gaagagagt agggacagag gaaacgttta tccctggagt cagaaagaat ggttctctca aaataaccag tggcctggcc gacctgtctt ggcctggat tccccatcca ttcattgtc taaatattta gaaggcggag aagttccctt aggttctgt acagtcagg ctgctctggt ctgggtgtg gctccaatct gcgtccactt agggagccca actgccccac ccaaagtcct aggggatgg cctccccctc taccaagcca ctcccaagag cagccccctt tctgtccac aaaaaccaca gttattggaa aagctccctg ccttccctg ccgctggctc cccaccaggc ttgggagccc tggcatccca agggggaag gggaggtgct gcattgtggg tgatgacgta ggacatgtgc ttggtacaaa aagggcctga gacattccac ct	Homo sapiens
286	3923	Prostaglandin D2 Receptor	gctgtgcaac ctgcggcgcca tgcgcaacct ctatgcgatg caccggcggc tgcagcggca cccgctcc tgcaccagg actgtgcga gccgcgcgcg gacgggagg gacgtcccc tcagccctg gaggagctgg atcacctctt gctgctggcg ctgatgaccg tgctctcac tatgtgtct ctgcccgtaa ttatcgcg tttactatga gcatthaagg atgtcaagga gaaaaacagg acctctgaag aagcagaaga cctccgagcc ttgcgatttc tatctgtgat ttcaattgtg gaccttga tttttatcat ttccagatct ccagtatttc gatatattt tcacaagatt ttcattagac ctcttaggta caggagccgg tgcagcaatt ccactaacat ggatccagt ctgtgacagt gtttttccat ctgtggtaag ctgaggaata tgtcacatt tcagtcacaa aacca	Homo sapiens
287	3923	Prostaglandin D2 Receptor	atcctgtgg cccatcatgac agtgggtcatg gccgtgtgct cccgtgctct cagcatccgc tgcttcaccc aggtgtgcg cccgtacagc agcagtgaga tgggggaccc ccttgccctc cgcttctacg ccttaaccc catcctggac cccgtggctt tcatcctttt ccgcaaggct gtcttccagc gactcaagct ctgggtctgc tgcctgtgcc tgggctgc ccacggagac tcgcagacac ccccttccca gctcgccctc gggaggaggg acccaagggc cccctctgct cctgtgggaa aggggggag ctgctgtgct ttgtcggtt gggcgaggg gcaggtggag cccttgctc ccacacagca gtcacaggg agcgccgtgg gaaagtcgtc caaagcagaa gccagcgtcg cctgtccct ctgtgacat ttcaagctga cccgtgac tctgcccctgt cttcggggca caggagcccag aaatcaggg acatggctga tggctgcgga tgctggaacc ttggccccc aactctggg ccgacagct gctgtttctc ctggggcagg gcagtcgctg ctggctctgg gaagagagt agggacagag gaaacgttta tccctggagt cagaaagaat ggttctctca aaataaccag tggcctggcc gacctgtctt ggcctggat tccccatcca ttcattgtc taaatattta gaaggcggag aagttccctt aggttctgt acagtcagg ctgctctggt ctgggtgtg gctccaatct gcgtccactt agggagccca actgccccac ccaaagtcct aggggatgg cctccccctc taccaagcca ctcccaagag cagccccctt tctgtccac aaaaaccaca gttattggaa aagctccctg ccttccctg ccgctggctc cccaccaggc ttgggagccc tggcatccca agggggaag gggaggtgct gcattgtggg tgatgacgta ggacatgtgc ttggtacaaa aagggcctga gacattccac ct	Homo sapiens

288	3924	Prostaglandin E Receptor EP1	NM_000955	<p> gggggaggca ggggtgagc ggcggtgat gggacccac atcccaggca gtgcccggcac  ccttgccc tgacatgag ccttgccggc cctcaacct gagcctggc ggcgaggcga  ccacatgac ggcgcccctg gtcaccaaca cgtcgccctg ccgcccctg ggcgcttcgc  ccgcccctg catcttctc atgacgtgg gcgcccgtc caacctgtg ggcgctggcg  tgctggcgca ggcgcccggc cgcctggac ggcgcccagt gaccccggc ggcgctggcg  tcgtggccag cctgctggc accgacctg cgggcccagt gaccccggc ggcgctggcg  tgctgtcta cactgcccgg cgcgctccg tgcctccag cgcgcccgt ggcgctggcg  gcatggtctt cctgcccctg tgcctccag cgcgcccgt ggcgcccgt ggcgctggcg  gcgtggcgct cagcggccg cgcgctccg tgcctccag cgcgcccgt ggcgctggcg  tgccgctggc cgcgctggc ggcgctggc ggcgctggc ggcgctggc ggcgctggcg  tgccgctga tagctgacg taccgggca cgtggtgct catcgccct ggcgctggcg  gcgctggcg ccagcactg cttgctggc tctcgccag cctcgccct ggcgctggcg  tcgcccgt ggtgtgcaac acgtcagc gctgcccct gcatcgcc cgtgctggcg  gccgctccc accgcccct cgcgcccct ggcgcccct ggcgcccct ggcgcccct  acggacccc ctcgcccct ggcgcccct ggcgcccct ggcgcccct ggcgcccct  ttggcgctc tggagcagc ggcgcccct ggcgcccct ggcgcccct ggcgcccct  tgcccgact tgcggtatc atggtggt cgtgcatct ggcgcccct ggcgcccct  tggtggcgct ggcgctggc ggcgctggc ggcgctggc ggcgctggc ggcgctggcg  ccgtgcccct tgcctccct ggcgcccct ggcgcccct ggcgcccct ggcgcccct  agccgctgct ggcgcccct ggcgcccct ggcgcccct ggcgcccct ggcgcccct  ccgcccggct ggcgcccct ggcgcccct ggcgcccct ggcgcccct ggcgcccct  acagcgccct cagccactc taagcacaac cagagggcca cagactaagc cagccccc  tggtggcgcc ccaggtggc ggcgcccct ggcgcccct ggcgcccct ggcgcccct  MSPCGPNLS LAGEATTCAA PWENTSAVP PSGASPALPI FMTLGAVSN LLALALLAQA P  AGRLRRRRA TTFLLFVASL LATDLAGHVI PGALVRLYT AGRAPAGGAC HFLGGCMVFF  GLCPILLGCG MAVERCVGVT RPLHAAARVS VARARLALAA VAAVALAVAL LPLARVGRYE  LQYPTWCFI GLGPPGGWRQ ALLAGLFASL GLVALLAALV CNTLSGLALH RARWRRRSR  PPASGPDNR RRGAGHGRS ASASSASSIA SASTFFGGR RPLFLAVRLA HDVEMVGLV  GIMVWSCICW SPMLVLVALA VGGWSSTSLQ RPLFLAVRLA SWNQILDPMV YILLRQAVLR  QLRLPPRA GAKGGPAGLG LTPSAWEASS LRSSRHSGLS HF  gggcccgcgt cggcgccgt ggtcgggaa ggggctctg gattcggtc cctcccctt A  ttcctctgag tctcggaac ctcagctct cagaccctc tctcccagg taaaggccg  gagaggagg cgcactctt tccagggac ccaccatgg gcaatgctc caatgactcc  cagctgagg actcgagac ggcagctgg ggcagctgg ggcagctgg ggcagctgg  tcgctcatgt tctcgcccg ggtgctggg accctcatg cactggcgt gctggcgcg  cgtggcggg ggcagctgg ggcagctgg ggcagctgg ggcagctgg ggcagctgg  gtgctgtga ccgactggt gtcacccag ctcgctggg ctcgctcat cagcccagt  gtactggctt cgtacgcgc gaaccagc ctcgctggg tggcgcccga gagccgcgc  tgacactact tgccttctc catgacctt ttcagcctgg ccacgatgt catgctctt  gccatggccc tggagcgcta cctctgac cctctgac ggcaccccct acttaccga ggcggcgct  tcggcctccg gggcgctggc cgtgctgct gtcactatg cagctccct gctctctg </p>	Homo sapiens
289	3924	Prostaglandin E Receptor EP1	NP_000946.1	<p> gggggaggca ggggtgagc ggcggtgat gggacccac atcccaggca gtgcccggcac  ccttgccc tgacatgag ccttgccggc cctcaacct gagcctggc ggcgaggcga  ccacatgac ggcgcccctg gtcaccaaca cgtcgccctg ccgcccctg ggcgcttcgc  ccgcccctg catcttctc atgacgtgg gcgcccgtc caacctgtg ggcgctggcg  tgctggcgca ggcgcccggc cgcctggac ggcgcccagt gaccccggc ggcgctggcg  tcgtggccag cctgctggc accgacctg cgggcccagt gaccccggc ggcgctggcg  tgctgtcta cactgcccgg cgcgctccg tgcctccag cgcgcccgt ggcgctggcg  gcatggtctt cctgcccctg tgcctccag cgcgcccgt ggcgcccgt ggcgctggcg  gcgtggcgct cagcggccg cgcgctccg tgcctccag cgcgcccgt ggcgctggcg  tgccgctggc cgcgctggc ggcgctggc ggcgctggc ggcgctggc ggcgctggcg  tgccgctga tagctgacg taccgggca cgtggtgct catcgccct ggcgctggcg  gcgctggcg ccagcactg cttgctggc tctcgccag cctcgccct ggcgctggcg  tcgcccgt ggtgtgcaac acgtcagc gctgcccct gcatcgcc cgtgctggcg  gccgctccc accgcccct cgcgcccct ggcgcccct ggcgcccct ggcgcccct  acggacccc ctcgcccct ggcgcccct ggcgcccct ggcgcccct ggcgcccct  ttggcgctc tggagcagc ggcgcccct ggcgcccct ggcgcccct ggcgcccct  tgcccgact tgcggtatc atggtggt cgtgcatct ggcgcccct ggcgcccct  tggtggcgct ggcgctggc ggcgctggc ggcgctggc ggcgctggc ggcgctggcg  ccgtgcccct tgcctccct ggcgcccct ggcgcccct ggcgcccct ggcgcccct  agccgctgct ggcgcccct ggcgcccct ggcgcccct ggcgcccct ggcgcccct  ccgcccggct ggcgcccct ggcgcccct ggcgcccct ggcgcccct ggcgcccct  acagcgccct cagccactc taagcacaac cagagggcca cagactaagc cagccccc  tggtggcgcc ccaggtggc ggcgcccct ggcgcccct ggcgcccct ggcgcccct  MSPCGPNLS LAGEATTCAA PWENTSAVP PSGASPALPI FMTLGAVSN LLALALLAQA P  AGRLRRRRA TTFLLFVASL LATDLAGHVI PGALVRLYT AGRAPAGGAC HFLGGCMVFF  GLCPILLGCG MAVERCVGVT RPLHAAARVS VARARLALAA VAAVALAVAL LPLARVGRYE  LQYPTWCFI GLGPPGGWRQ ALLAGLFASL GLVALLAALV CNTLSGLALH RARWRRRSR  PPASGPDNR RRGAGHGRS ASASSASSIA SASTFFGGR RPLFLAVRLA HDVEMVGLV  GIMVWSCICW SPMLVLVALA VGGWSSTSLQ RPLFLAVRLA SWNQILDPMV YILLRQAVLR  QLRLPPRA GAKGGPAGLG LTPSAWEASS LRSSRHSGLS HF  gggcccgcgt cggcgccgt ggtcgggaa ggggctctg gattcggtc cctcccctt A  ttcctctgag tctcggaac ctcagctct cagaccctc tctcccagg taaaggccg  gagaggagg cgcactctt tccagggac ccaccatgg gcaatgctc caatgactcc  cagctgagg actcgagac ggcagctgg ggcagctgg ggcagctgg ggcagctgg  tcgctcatgt tctcgcccg ggtgctggg accctcatg cactggcgt gctggcgcg  cgtggcggg ggcagctgg ggcagctgg ggcagctgg ggcagctgg ggcagctgg  gtgctgtga ccgactggt gtcacccag ctcgctggg ctcgctcat cagcccagt  gtactggctt cgtacgcgc gaaccagc ctcgctggg tggcgcccga gagccgcgc  tgacactact tgccttctc catgacctt ttcagcctgg ccacgatgt catgctctt  gccatggccc tggagcgcta cctctgac cctctgac ggcaccccct acttaccga ggcggcgct  tcggcctccg gggcgctggc cgtgctgct gtcactatg cagctccct gctctctg </p>	Homo sapiens
290	3925	Prostaglandin E Receptor EP2	NM_000956	<p> gggggaggca ggggtgagc ggcggtgat gggacccac atcccaggca gtgcccggcac  ccttgccc tgacatgag ccttgccggc cctcaacct gagcctggc ggcgaggcga  ccacatgac ggcgcccctg gtcaccaaca cgtcgccctg ccgcccctg ggcgcttcgc  ccgcccctg catcttctc atgacgtgg gcgcccgtc caacctgtg ggcgctggcg  tgctggcgca ggcgcccggc cgcctggac ggcgcccagt gaccccggc ggcgctggcg  tcgtggccag cctgctggc accgacctg cgggcccagt gaccccggc ggcgctggcg  tgctgtcta cactgcccgg cgcgctccg tgcctccag cgcgcccgt ggcgctggcg  gcatggtctt cctgcccctg tgcctccag cgcgcccgt ggcgcccgt ggcgctggcg  gcgtggcgct cagcggccg cgcgctccg tgcctccag cgcgcccgt ggcgctggcg  tgccgctggc cgcgctggc ggcgctggc ggcgctggc ggcgctggc ggcgctggcg  tgccgctga tagctgacg taccgggca cgtggtgct catcgccct ggcgctggcg  gcgctggcg ccagcactg cttgctggc tctcgccag cctcgccct ggcgctggcg  tcgcccgt ggtgtgcaac acgtcagc gctgcccct gcatcgcc cgtgctggcg  gccgctccc accgcccct cgcgcccct ggcgcccct ggcgcccct ggcgcccct  acggacccc ctcgcccct ggcgcccct ggcgcccct ggcgcccct ggcgcccct  ttggcgctc tggagcagc ggcgcccct ggcgcccct ggcgcccct ggcgcccct  tgcccgact tgcggtatc atggtggt cgtgcatct ggcgcccct ggcgcccct  tggtggcgct ggcgctggc ggcgctggc ggcgctggc ggcgctggc ggcgctggcg  ccgtgcccct tgcctccct ggcgcccct ggcgcccct ggcgcccct ggcgcccct  agccgctgct ggcgcccct ggcgcccct ggcgcccct ggcgcccct ggcgcccct  ccgcccggct ggcgcccct ggcgcccct ggcgcccct ggcgcccct ggcgcccct  acagcgccct cagccactc taagcacaac cagagggcca cagactaagc cagccccc  tggtggcgcc ccaggtggc ggcgcccct ggcgcccct ggcgcccct ggcgcccct  MSPCGPNLS LAGEATTCAA PWENTSAVP PSGASPALPI FMTLGAVSN LLALALLAQA P  AGRLRRRRA TTFLLFVASL LATDLAGHVI PGALVRLYT AGRAPAGGAC HFLGGCMVFF  GLCPILLGCG MAVERCVGVT RPLHAAARVS VARARLALAA VAAVALAVAL LPLARVGRYE  LQYPTWCFI GLGPPGGWRQ ALLAGLFASL GLVALLAALV CNTLSGLALH RARWRRRSR  PPASGPDNR RRGAGHGRS ASASSASSIA SASTFFGGR RPLFLAVRLA HDVEMVGLV  GIMVWSCICW SPMLVLVALA VGGWSSTSLQ RPLFLAVRLA SWNQILDPMV YILLRQAVLR  QLRLPPRA GAKGGPAGLG LTPSAWEASS LRSSRHSGLS HF  gggcccgcgt cggcgccgt ggtcgggaa ggggctctg gattcggtc cctcccctt A  ttcctctgag tctcggaac ctcagctct cagaccctc tctcccagg taaaggccg  gagaggagg cgcactctt tccagggac ccaccatgg gcaatgctc caatgactcc  cagctgagg actcgagac ggcagctgg ggcagctgg ggcagctgg ggcagctgg  tcgctcatgt tctcgcccg ggtgctggg accctcatg cactggcgt gctggcgcg  cgtggcggg ggcagctgg ggcagctgg ggcagctgg ggcagctgg ggcagctgg  gtgctgtga ccgactggt gtcacccag ctcgctggg ctcgctcat cagcccagt  gtactggctt cgtacgcgc gaaccagc ctcgctggg tggcgcccga gagccgcgc  tgacactact tgccttctc catgacctt ttcagcctgg ccacgatgt catgctctt  gccatggccc tggagcgcta cctctgac cctctgac ggcaccccct acttaccga ggcggcgct  tcggcctccg gggcgctggc cgtgctgct gtcactatg cagctccct gctctctg </p>	Homo sapiens

291	Prostaglandin E Receptor EP2	NP_000947.1	<p> tgcgtgccgc tgctggacta tgggcagtagc gtccagtagt gccccgggac ctggtgcttc  atccggcacg ggcggaccgc ttacctgcag ctgtacgcca cctctcgtct gcttctcatt  gtctcgggtgc tgcctgcgaa cttcagtgctc attctcaacc tcctccgcat gcaccgccga  agccggagaa gccgctgcgg accttccctg ggcagtggcc accctcattct cctggcctatc  aggagagggg aaagggtgtc catggcggag gagacggacc ccttcacga ttttgcata tatgaatgaa  atgaccatca ccttcgccgt ctgctccttg aggtcctctt caagctctta ggtttttatc aattaattca  acctcttccc gaaaggaaaa atgggacctc aggcctcctt tctcagact aatgcgttca  ataattgacc cttgggtctt tgccatcctt aggcctcctt tctcagact aatgcgttca  gtcctctgtt gtcggatttc attaagaaca caagatgcaa cacaaacttc ctgttctaca  cagtcagatg ccagtaaaaa ggcctgacct tgaggtcagt agtttaaaag ttcttagtta  tatagcatct ggaagatcat ttgaaattg ttccctggag aaatgaaaac agtgtgtgtaa  caaatgaag ctgccctaatt aaaaaggagt atacaacat ttaagctgtg gtcaaaggcta  cagatgtgct gacaaaggac ttcatgtaaa gtgtcagaag gagctacaaa acctaccctc  aatgagcatg gtacttgccc ttggaggaa caatcggtg cattgaagat ccagctgcct  attgatttaa gctttcctgt tgaatgaaa agtatgtgtt ttgttaattt gtttgaacc  ccaaacagtg actgtacttt ctattttaat ctgtacta ccgttatata catatagtgt  acagccagac cagattaaac ttcatatgta atctctagga agtcaaatg tggaaagcaac  caagcctgct gtcttgtgat cacttagcga acctttatt tgaacaaatga agttgaaaaat  cataggcacc ttttactgtg atgtttgtgt atgtgggagt actctcatca ctacagtatt  actcttaciaa gagtggactc agtgggttaa catcagtttt gtttactcat cctccaggaa  ctgcaggtca agttgtcagg ttatttatt tataatgtcc atatgtctaat agtgatcaag  aagactttag gaatggttct ctcaacaaga aataatagaa atgtctcaag gcagtttaatt  ctcataata ctcttattat cctatttctg ggggaggatg tacgtggcca tgtatgaagc  caaatattag gcttaaaaaac tgaaaaatct ggttcattct tcagatatac tggaaacctt  ttaaagttag tattggggcc atgagtaaaa tagattttat aagatgactg tgttgtacca  aaattcatct gtctatatatt tatttagggg aacatggttt gactcatctt atatgggaaa  ccatgtagca gtgagtcata tcttaataata ttctaaaatg ttgggcatgt aaatgtaaac  tcagcatcaa aatatttctag tgaatttga ctgtttaatc atagttactg tgtaaaactca  tctgaaatgt tacaaaaata aactataaaa ca  </p>	Homo sapiens
292	Prostaglandin E Receptor EP2	L32662	<p> MGNASNDQSQ EDCETRWLP PGESPAISSV MFSAGVLGNL IALALLARRW RGDVCSAGR P  RSSLFLFHLV VTELFTDLL GTCLISPVVL ASYARNQTLV ALAPESRACT YEAFAMTFFS  LATMLLFAM ALERYLSIGH PYFYQRRVSA SGGGLAVLPVI YAVSLLFCSL PLLDYGYVQ  YCPGTWCFIR HGRTAYLQLY ATLLLLIVS VLACNFSVIL NLIRHRRSR RSRGSPSLGS  GRGGPGARRR GERVSMARET DHLILLAINT ITFVAVCSLPF TIFAYMNETS SRKEKWDLQA  LRFLINSII DPWFVAILRP PVLRLMRSVL CCRISLRTQD ATQTSCTQS DASKQADL  atgagaaaaa gaagactcag agagcaagag gaattttggg gaaattaa A  </p>	Homo sapiens
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294	3926	Prostaglandin E2 Receptor EP3	NP_000948.1	<p>           cctcccgtg cggctctctg gacgccatcc cctcctcacc tcgaagccaa catgaaggag            acccgggct acggagggga tgcccccttc tgcccccttc tcaaccactc ctacacaggc            atgtggcgc ccgagcggtc gcccaggcg cggggcaacc ccacgcgcc tccagggtct            ggcaggatt gcgatcggt gtcgctggc tcccgatca cctgctgct cactgggttc            gtgggcaacg cactggccat gctgctcgtg tgccgagct accggcgccg ggagagcaag            cgcaagaagt cctcctgct gtgcacggc tggtggcgcc tcaccgacct ggtcggggcag            cttctacca cccgggtcgt catcgtcgtg tacctgtcca agcagcggtg ggagcacatc            gaccgctgg ggcggctctg caccttttcc gggtgacca tgactgtttt cgggtctctc            tcgttttca tgcgcagcgc catggccgtc gaggggcgcc tgccatcag ggcgcgcac            tggatgcga gccacatgaa gacgctgccc acccgctg tgctgctcg cgttggtgctg            gccgtgctcg ccttgcacct gctgcgggtg ctggcgctgg gccagtacac cgtccagtg            cccgggacgt ggtgcttcat cagcacccgg cgagggggca cagggactag ctcttcgcat            aactggggca accttttctt cgcctctgcc ttgacctcc tgggctctt ggcgtgaca            gtcacctttt cctgcaacct ggccaccatt aaggccctgg tgtcccgctg cggggccaa            gccacggcat ctcagtcag tgcccagtg ggcgcacac cgaccgagac gccattcag            cttatggga tcatgtcgt gctgctggtc tgctggtctc cgctcctgat aatgatgtg            aaaaatgatct tcaatcacac atcagttgag cactgcaaga cacacacgga gaagcagaaa            gaatgcaact tcttcttaac agctgttcgc ctggcttcac tgaaccagat cttggatcct            tgggtttacc tgctgttaag aaagatcctt cttcgaaagt ttgcccagat gagaaaaaga            agactcagag agcaagagat ggggcctgat ggaagtggt ttgtcatgc atggaggcag            gtccccagga cttggtgcag ttctcatgat agagaacct gcagtgtcca gctaagctga            tgacttgaag ataaatctgc ctaaccctgg gatgaagtat ctgtgaacta ttttgacagc            agatgaggaa ttttgggga attaaaacct gctttctgc caggatcaca tcactggaag            ctccatgact cttcttttgt aaaaagaaaa aaaaatcag aacacccac tccccaaact            attctctttt actctctccc ccaagccac ccccaaatat aactgtatc cagaagctgt            tatgtcctgt ttccatcat gttttgtac tttaactata tctacataca tcaattaaac            ttatgtccta ttgttttgt aatttatatt tgcgtataca ttatcatatg taaaatttgc            atttttttat tgaataattat gttctgtgag atttatccac attgaaacat ggagctctaa            atcgttaatt ttaaccgcta tagagtattc cataatttga ataaagcata attgttttgt            ac         </p>	Homo sapiens
295	3927	Prostaglandin E4 Receptor EP4	NM_000958	<p>           cgggtgtccaa aaatcgacac ccactgagac cggctttgag aagccgaaga ttggcagtt            cggcacagcc tcacacctga acgctgctc cccgcagacg agaccggcgg gcaactgcaaa            gctgggactc gcttttgaag gaaaaaaat agcgagtaag aaatccagca ccattcttca            ctgacccatc ccgctgcacc tctgttttcc caagttttg aaagctggca actctgacct            cgggtgtccaa aaatcgacac ccactgagac cggctttgag aagccgaaga ttggcagtt            ac         </p>	Homo sapiens

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297	3928	Prostaglandin E2 Receptor	NM_000959	<p> ggcgcggggc gccatggcac accgagcggc tccgtcttct gctcctcaga gagcccgct A  ggcgcgctgg gatgacaaga tgtctggact gcaatcctgc acagtttga gagggagatg  acttgagtgg ttggctttta tctccacaac aatgtccatg acaattcca aacagctagt </p>	Homo sapiens

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cattgagcgg tgtattggag tcacaaaacc atatttctat gttttcatag ctttgctggc  
acatgtgaaa atgatgttaa gtggtgtgtg cttgttctat gttttcatag ctttgctggc  
catccttgga catcgagact ataaaattca ggcgtcgagg acctggtgtt tctacaacac  
agaagacatc aaagactggg aagatagatt ttatcttcta ctttttctt tctgggggct  
cttagccctt ggtgtttcat tgtgtgcaa tgcaatcaca ggaattacac tttaagagt  
taaatTTaaa agtcagcagc acagacaagg cagatctcat catttgaaa tggtaattcca  
gtcctggcg ataatgtgtg tctcctgtat ttgttgagc ccatctctgg ttacaatggc  
caacattgga ataatggaa atcatctct ggaacctgt gaaacaacac ttttgcctc  
ccgaatggca acatggaatc aaatcttaga tccctgggtt tataattctt cagaaaagg  
tgtccttaag aatctctata agcttgccag tcaatgtgtt ggtgtgcta tttctgagtc  
acataattgg gagcttagt ccattaaaa tccctaaag gttgctgata tttctgagtc  
accagttgca gagaaatcag caagcaccta gcttaaatagg acagtaaatc tgtgtgggc  
tagaacaataa attaaagacat gtttggcaat atttcagttt ttgtcagatt caggttttga  
ctggaaaatt caggcttcat catgtagttt gaagatacta ttttgcactt gtttttgcca atgggaggtt  
aatgtgtcaa ataaacagga taactgtaca ttttcaactt gtttttgcca atgtgtctt  
gacacaataa aataatgcca tgggagtcac actgaaagca attttgagct tatctgtctt  
atttatgctt tgagtgaatc atctgttgag gtctaagtc tctacttggc ctatttgcca  
gagaacatct taatgcagcc tgcatagtga aatggttatt ttgagatcac cgctctgtag  
ctaaccctta taaactaggc tcagtataat aaagcactct tattttttga tctggcctat  
tttggccctc attgtgtagc tcaataaac acatgcttg ccaggtctgg cagacaggtt gcctgaccct  
gatggtttgt tataacaacc tctgcataat ccaggtcttg cacatttga caaataggac tgcctacatt  
gcaatcctat ctagaatggg cccattcttg tgcttttttc atgtcataga tttagcaattt  
tattattatg aaggtcgatt gttgttgaa gtgttttttc gtgtgtgatt gcacataaaa taatttttag  
tcaataaatt atttttctc tgaataattt tgggcaacta gaattacagc agtttcaaac  
agaaacaaag gctcttctc agcacattga tgggcaacta atgatagggt caaagaatat  
tctaccatgg ataatgcaaa caaacggaag ctacatgcca atgtatagggt aacagaatc  
tggcaaaaagg tgctttacct tgagccatta ttgtgtcag agaacaacaa acataacac  
aatatataaa ttcaaagact atctgcagct agtgtgtttc ttctttacac acataacac  
acagacatca gaaaattctg ttgagagcag gtccattaaa ttgttaagat ggcataattc  
aaagcctgtg ctaccagtac taagagggga agactggcaa ttgtcccaagc acttggggat  
tattataaca attaaactagg agatcaagag ataataatct ctccccaaat ttccaataa  
taattgagac tttttctttg cttgtttgtg taattcaacc aaaagaattt caatacccat  
tcaaatgtc ctaggcttat cagaaaattag ggaaggtagt cctgtcttat aataggaaaa  
tgtattttctg tataagattt cttgtcttc ataaaaatg ggattcattt aaaaaattat  
cttccctgt taggctgatt tcagattctc taggaaatct ggtgaagtaa ccagaagact

298	3928	Prostaglandin F2-alpha Receptor	NP_000950.1	MSMNSKQLV KSKASFLLLA CPLLLGSVMA ASRTWC FYNT RSHHLEMVIQ PWVYILLRKA cggcccgccc tttctctcgg gcgcccggcg gcgcccaccc tcctctaaag ggagttacag aaactgacca agtaacggca atttacatgg attgcctatc attggccttt cagaggtatt attggcatct gtgaagcaga gagcagctct ctgttcccag tctgccatgg gtcctggcca tttctgatta ctctctaccc agggatcatg gtatccctca actgttaaga tggaacctgt acataccacc	SPAAALLSNT SGLVITDFFG IERCIGVTKP EDIKDWEDRF LLAIMCVSCI VLKNLYKLAS tggggaggcg tgcgctccagt tcggggcctc tgtagcagc gaagaagcct ttgaaacagt cggctcttct tggccctgtg ccaatctggc acatacatgc tctatggcaa gggtcatcgt ccctggcaat ccatcttcat tggtgggaga ccttctcacc atgaaaactc tgtacctgat agagccaggg taacagctg caaagaacgc cctcaaaaga cctcctattg tggaacctgt acataccacc	TCQTENRLSV HLINGAIAVF IFHSTKITSK YLLLFSLGL CWSPFLVTMA QCCGVHVVISL cgcagcagag ggagctctga caggaggatg ctctctctcc tattggttaag ctttctctgt tccaattgtc ggctcttctt cttggtctgac caacaactgg catgtactgt gaaccccatg atggctgctg tcctgcctct catgttcaat agcctctgac atgaaaactc tgtacctgat ccagagccat cagagccatg taacagctg caaagaacgc cctcaaaact ttctgcttct gtctatgccc tttgtctatt cgaagtgtcc aaatccagat gtcctcagat gaggtgtcc ctgtatttc	ILSNSLAIAI FDQSNVLCSE LFAVFIALLP LAIGITLLRV ETCETTFEAL SLKVAAISES PVAEKSAST ggtccgattc ggttcgaatc cgagagccca tgtagtgga gttgatggca gatgagtttt tacacaattg ttccgaacta ctctctctct attatgggg tccattctct gggcactcca attctgctg aacatcacga tacttctct tatgtgctga aggaagaggg cctagtaacc gtctatgccc tttgtctatt cgaagtgtcc aaatccagat gtcctcagat gggaattgca ctgtatttc	LMKAYQRFQ FGICMVFSGL ILGHRDYKIQ KFKSQHRQG RMATWNQILD PVAEKSAST agaggctgac gattccccgc gctgctgggg aaccaataga cactggaaaa cctcactgga gggtttgcca ccctgctgtg cccttgaag taatgtgctt cctcagtggt aaacattggcc tttgtatgtc tggtttgccc tgggttcttt gctgcgatct cattgtcact ggtgcattat agccctctgc acatgatctc gcagatgcaa aggttcaacc cagtaggattg aggtctcacc	Homo sapiens		
299	4051	Proteinase-Activated Receptor 2	NM_005242								Homo sapiens
300	4051	Proteinase-Activated	NP_005233.2	MRSPSAAWLL VDEFSASVLT	GAAIILAAASL GLLTVFLPI	SCSGTIQGTN VYTIVFVGL	RSSKGRSLIG PSNGMALWVF	KVDGTSHTVG LFRTKKKHPA	KGVTVETVFS VIYMANLALA		Homo sapiens





303	4090	G Protein- Coupled Receptor GPR17	NM_005291	MSKTRNHSTA YLTK	KASLLILVIF TICFAPSNII LIIHHANYYY NNTDGLYFIY LIALCLGSLN SCLDPFLYFL	Homo sapiens
					ccgacaccca cggcgaggaga tcaactgctg cccgcagac cctgtccct tctcccga A	
					ccagcagcta gaggatgcc aaacggagtt ggtgggctgg atccagaaag ccccaagag	
					agatgctgaa actctcagg tctgactcca gccaaagcat gaatggcctt gaagtggctc	
					ccccaggtct gataccaac ttctccctgg ccacggcaga gcaatgtggc caggagacgc	
					cactggagaa catgctgttc gcctccttct accttctgga tttatcctg gctttagtgt	
					gcaataacctt ggctctgtgg cttttcatcc gagaccacaa gtccgggacc ccggccaacg	
					tggtcctgat gcatctggcc gtggcggact tgtctgctgt gctggctctg cccacccgcc	
					tggtctacca cttctctggg aacctctggc catttgggga aatcgcatgc cgtctcaccg	
					gcttctctctt ctacctcaac atgtacgcca gcatctactt cctcacttgc atcagcgccg	
					accgtttcctt ggccatttgc caccgggtca agtccctcaa gtccgcagg cccctctacg	
					cacacctggc ctgtgcttc ctgtgggtgg tgggtgctgt ggccatggcc ccgctgctgg	
					tgagccacaca gaccgtgcag accaaccaca cgggtgctgt cctgcagctg tacccggaga	
					aggcctccca ccatgccctg gtgtccctgg cagtggcctt caccttccc ttcataacca	
					cggtaacctg ctacctgctg atcatccgca gcctgcggca gggcctgctt gtggagaagc	
					gcctcaagac caaggcagtg cgcagtatcg ccatagtgct ggcctatctt ctggtctgct	
					tcgtgcccta ccagtcacac cgtccctctc acgtgctgca ctaccgcagc catggggcct	
					cctgcgccac ccagcgcac cctggccctg caaacccgat cacctcctgc ctaccacagcc	
					tcaacggggc actcgacccc atcatgtatt tcttcgtggc tgagaagttc cgccacgccc	
					tgtgcaactt gctctgtggc aaaggctca agggcccgcc cccagcttc gaaggaaaa	
					ccaacgagag ctgctgagtg gccaagtcag agctgtgagc gggggggccc gtccaggccc	
					agcgagagct ttttaggact cagcagaccc agcaagagc atctgccctt tccccagcca	
					cttccccagc agcaacctg aaatctcagc agatgccac catttctcta gatcgccctag	
					tctcaaccca taaaaaggaa gaactgacaa aggggatcca tcggccaccc ctctgcaggg	
					gcttgtgatg gctacaatgg ctccatgaca ctcaacgact tcatctgtgg caggagagaga	
					ggaggccgga agaacaaccc ctgaacaatg gaggcctttc ttcccgcta ggtcccagc	
					ctccttcccg ctacagaatc gctcatcgcc gaggctcagc agaaagacc tgaaggcagg	
					ctgcaaatga cccagaagag ggacctggga gtccctggtg ggacggggag ggagtctcaa	
					tactcctttg cagcgcaagg tactctgagt cccctctgta gtgcctctgc cagacacaca	
					ctgcctgagt tgaagagaca caggccacac atttcaggct ggttgccagc ggacgtcagc	
					actcacggcc tgcggggact cagcacagct ctggattctg gatctctctt gctgtaaccc	
					cacgcacaag cctgcaaccc ccagagctct ttgacaggct cccaggcctc ccagtcctgg	
					acaagcatgt gcagtcaagg gagctcagct caggccaggg ctgggctgtg cacctgcctc	
					ccactgaccc agaccactt cctccagaga ggctctctc cgcctgagct atttcccttg	
					ctagtgtgca gatatttccc taacatgtcc tttttgtat ttgtttgtac ggaccataaa	
					tataactgta gctttaagac taaaaaaa	
304	4090	G Protein- Coupled Receptor GPR17	NP_005282.1	MSKRSWWAGS RKPPREMLKL SGSDSSQSMN	GLEVAPPGLI TNFSLATAEQ CGQETPLENM P	Homo sapiens
				LFASFYLLDF ILAIVGNTLIA LWFIRDHKS	GTPANVFLMH LAVADLSCVL VLPTRLVYHF	
				SGNHWPFGEI ACRLTGFLFY LNMYSIYFL	TCISADRFIA IVHPVKSLKL RRPLYAHLAC	
				AFLWVVVAVA MAPLLVSPQT	QLYREKASHH ALVSLAVAF FPFITTVTCY	

305	4254	Rhodopsin	NM_000539	LSAKSEL	<p>           LLIIRSLRQG LRVEKRLKTK AVRMIAlVLA IFLVCFVPYH VNRSVYVLHY RSHGASCATQ            RILALANRIT SCILTSINGAL DPIMYFFVAE KFRHALCNLL CGKRLKGPFP SFEKTNES            agagtcattcc agctggagcc ctgagtggct gagtcaggc cttcgcagca ttcttgggtg A            ggagcagcca cgggtcagcc acaaggcca cagccatgaa tggcacagaa ggccttaact            tctacgtgcc cttctcaat gcgacgggtg tggtagcag ccccttcgag taccacagt            actacctggc tgagccatgg cagttctcca tgcctggcgc cgtccagcac aagaagtgc            tgctgggctt ccccatcaac ttcctcacgc tctacgtcac cgtccagcac aagaagtgc            gcaagcctct caactacatc ctgctcaacc tagcgtggc tagcctcttc atggtcctag            gtggcttcac cagcaccctc tacacctctc tgcattgata cttcgtcttc gggccacag            gatgcaattt ggaggcttc ttggccacc ttggcggtga aattggcctg tggccttgg            tggctcctggc catcgagcgg tacgtgggtg tgtgtaagcc catgagcaac ttccgcttcg            gggagaacca tgccatcatg ggcgttgctt tcccggtggt cctggcgctg gctggcgccg            caccctcact cgcggtggtg tccaggtaca tcccgaggtg cctgcagtcg tctgtgtgaa            tgcactacta cagctcgaag cggaggtca acaacgagtc tttgtcatc tacatgttcg            tggctccactt caccatcccc atgattatca tctttttctg ctatgggagc ctcgtcttca            ccgtcaagga ggcgctgccc cagcagcagg agtcagccac cacacagaa gacagagaag            aggtcaccgg catggtcatc atcatggtca tgccttctct gatctgctgg tggccttacg            ccagcgtggc attctacatc ttcaaccacc agggctccaa cttcgggtccc atcttcata            ccattcccagc gttctttggc aagagcgccg ccattacaa cctgtcatc tatatcata            tgaacaagca gttccggaac tgcattgtca ccacatctg ctgcggcaag aacctactgg            gtgacgatga ggcctctgct accgtgtcca agcgtgtc agcggaggtg gccccggcct            aagacctgcc taggactctg tggcgcacta taggcgtctc ccatcccta cacttcccc            cagccacagc catccaccac ggagcagcgc ctgtgcagaa tgaacgaag cacataggct            ccttaatttt tttttttttt ttaagaaata attaatgagg ctctcactc acctgggaca            gctgagaag ggacatccac caagacctac tgatctggag tcccacgtc ccaaggcca            gcgggatgtg tgccctcctt cctcccaact catctttcag gaacacgagg attcttgctt            tctggaaaag tgtcccagct tagggataag tgtctagcac agaattggg acacagtagg            tgcttaataa atgctggatg gatgcaggaa ggaatggagg aatgaatggg aagggagaa            atatctatcc tctcagacc tgcagcagc agcaactcat acttggctaa tgatatggag            cagttgtttt tccctccctg ggccctcact tcttctccta taaaatggaa atccagatc            cctggtcctg ccgacacgca gctactgaga agaccataag aggtgtgtgt gtgtctatgt            gtgtgtttca gcaactttgt aatagcaaga agctgtacag attctagtt atgttgtgaa            taacatcaat taatgtaact agttaattac tatgattatc acctcctgat agtgaacatt            ttgagattgg gcattcagat gatgggggtt caccacact tggggcaggt tttaaaaat            tagctaggca tcaaggccag accagggctg ggggttgggc tgtaggcagg gacagtcaca            ggaatgcagg atgcagtcac cagacctgaa aaaaacac tgggggaggg ggacggtgaa            ggcaagtcc ccaatgaggg tgagattggg cctgggggtc caccctagt gtggggcccc            aggtccctg cctcccttc ccaatgtggc ctatggagag acaggcctt ctctcagcct            ctggaagcca cctgctctt tgcctagca cctgggtccc agcatctaga gcattgagcc            tctagaagcc atgctcacc gccacattt aattaacagc tgaatccctg atgtcctct         </p>	<p>           Homo            sapiens         </p>
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306	4254	Rhodopsin	NP_000530.1	<p>tactcgaaga gcttagaaac aaagagtggg aaattccact ggccctacct tccttgggga  tggtcatggg cccagtttc cagttccct tgccagacaa gcccatctc agcagttgct  agtcattct ccattctgga gaattgctc caaaaagctg gccacatctc tgagtggtca  gaattaagct gcctcagtaa ctgctccccc ttctccatat aagcaagcc agaagctcta  gctttaccca gctctgctg gagactaagg caaattgggc cattaaaagc tcagtcctta  tggttggtatt aacgggtggtg ggttttggtg ctttcacact ctatccacag gatagattga  aactgccagc ttccacctga tccctgacct tgggatggct ggattgagca atgagcagag  ccaagcagca cagagtcctc tggggctaga ggtggaggag gcagtccctg gaatgggaaa  aaccctca</p>	Homo sapiens
307	4284	Retinal G Protein-Coupled Receptor RPE	NM_002921	<p>VTQHKKLRT PLNYILLNLA VADLFVVLGG FTSTLYTSLH GYFVFGPTGC NLEGFATLG  GEIALMSLVV LAIERVAVVC KPMNSFRFGE NHAIMGVAF WMALACAP PLAGWSRYIP  EGLQCSGID YITLKPEVNN ESFVIYMEVV HFTIPMIIF FCYGLVFTV KEAAQQQES  ATTQKAEKEV TRMVIIMVIA FLICWVPYAS VAFYIFTHQG SNFGPIFMTI PAFFAKSAAI  YNPVIYIMN KQFRNCMLTT ICCGNPLGD DEASATVSKT ETSQVAPA</p>	Homo sapiens
308	4284	Retinal G Protein-	NP_002912.1	<p>agagacagct ggccactg cagtggaggga gagtggagat ggcagagacc agtgcctgc A  ccactggctt cggggagctc gagtgctggtg ctgtggggat ggtgctactg gtggaagctc  tctccggtct cagcctcaat accctgacca tcttctcttt ctgcaagacc ccggagctgc  ggactccctg ccactactg gtgctgagct tggctcttgc ggacagtggg atcagcctga  atgccctcgt tgcagccaca tccagccttc tccggcgctg gccctacgcg teggacggct  gccaggctca cggcttccag ggtttgtga cagcgttggc cagcatctgc agcagtgcag  ccatcgcatg gggcggttat caccactact gcacccgtag ccagctggcc tggaaactcag  ccgtctctct ggtgctcttc gtgtggctgt cttctgcctt ctgggcagct ctgccccctc  tgggttgggg tcaatatgac tatgagccac tggggacatg ctgcacctg gactactcca  agggggacag aaacttcacc agcttccctc tcaccatgtc cttcttcaac ttcgccatgc  ccctcttcat cactacact tctacagtc tcatggagca gaaactgggg aagagtggcc  atctccaggt aaacaccact ctgccagcaa ggacgtgct gctcggctgg ggcctctatg  ccatctctgta tctatacgca gtcatcgag acgtgacttc catctcccc aaactgcaga  tggtgcccgc cctcattgcc aaaaatggtc ccacgatcaa tgccatcaac tatgcctgg  gcaatgagat ggtctgcagg ggaatctggc agtgcctctc accgcagaag agggagaagg  accgaaccaa gtgagcctgc caccctggag tgagccccag gccaggaggc tgttccagga  gtcctgcccc gcagcctcgg tggccaagcc cagacactca cccacctcc cagtgggccc  cgtgatcctt ggtcctaggc tggacacagg attcagaaaag acaccaggct gcacagaaag  agccagatgg acctgagtgt cggtcacagc cccctacact caaggctgag aggcctcagg  aaagtcatc ctttttaaaa ataataataa atgtaagggg gtacagtga gttttgttac  atggatagat tgcctagtgg tgaagtctgg gcttttagtg taaccatcac cctaataata  tacgttgtac ccattaagtt atttctcat cctcaccctc tccaccttg tccacctct  gagctccaa tgtctattat tccacactcc atgtccacgt gtacacatta tttagctccc  acttacaagt gagaacatgt ggtatttgac ttta</p>	Homo sapiens

309	4321	Coupled Receptor RPE	Secretin Receptor	NM_002980	SQLAWN SAVS LVLFWLSSA FWAALPLL GW GHYDYEPLGT CCTLDYSKGD RNFTSFLFTM SFFNFAMPLF ITITSYSLME OKLGKSGHLQ VNTTLPARTL LLGWGPYAIL YLYAVIADVT SISPKLQMPV ALIAKMVPTI NAINYALGNE MVRGIWQCL SPQKREKDR K acgaggcccg ccggagcccg ggaccctcg ccggcgcgctg agctcccgag cgggcagagg A gcacgggacg ccggagcgctg ggagccctc gggaacgctg cgggcaccat cgcctccac ctgtcccgcc cgctgcagca gctactactg ccggtgctgc cgcctgcgc cgcgactcg actggagccc ttcccgact atgtgacgtg ctacaagtgc tgtgggaaga gcaagaccag tgcctgcagg aactctccag agagcagaca ggagacctgg gcacggagca gccagtggca ggtgtgagg ggaatgggga caacataagc tgcctggcct ctctgtgccc ggcccgatg gtggaggtgg aatgcccag atctctccg atgtccacca gcagaaatgg ttccctgttc cgaactgca cacagatgg ctggtcagaa acctcccca ggcctaactt ggcctgtggc gttaaatgta acgactctc caacgagaa cggcactcct acctgctgaa cctgaaagtc atgtacaccg tgggctacag ctctccctg gtcactgctc tggcgccct tggcactcctc tgtgctttcc ggaggtcca ctgcactgc aactacatc acatgcacct gttcgtgccc ttcatcttcc gtgcccgtc caacttcac aaggacgcg tgccttctc ctccagatgat gtcactact gcgaccgca caggcgggc tgcaagctgg tcatggtgct gttccagtac tgcatcatgg ccaactact ctggtgctg gtggaaggcc ttacacttca cacactcctc gccatctcct tcttctctga aagaaagtac ctccagggat ttgtggcatt cggatggggg ttccagacca tttttgttgc tttgtgggct attgccagac actttctgga agatgttggg tgtgtggaca tcaatgccaa cgcattccatc tgggtgatca ttcgtggtcc tgtgactcctc tccatctga ttaatttcat ccttttata aacattctaa gaactcctgat gagaaactt agaacccaag aaacaagagg aatatgaagc agccattata agccttggc caggtccact ctcctgctga tccccctct tggcattccac tacatgctct tgccttctc ccagaggac gctatggaga tccagctgtt tttgaaacta gcccttggct catccaggg actggtggtg gcgctcctct actgcttct caatggggag gtgcagctgg aggttcagaa gaagtggcag caatggcacc tccgtgagtt cccactgcac cccgtggcct ccttcagcaa cagcaccag gccagccact tggagcagag ccagggcacc tgcaggacca gcatcatctg agaggctgga gcagggtcac ccacggacag agaccaagag aggtcctgag aaggctgggc actgctgtgg gacagccagt ctccccagca gacacctgt gtctccttc agctgaagat gccctcccc aggccttggga ctctccgaa gggatgtgag gcaactgtgg gcaggacaa ggcctgggat ttggttcgtt tgctcttctg ggaagagaag ttcagggggtc ccagaaagg acagggaaat aaatggtgcc tgggatgaga ttc	Homo sapiens
310	4321	Secretin Receptor	NP_002971.1	MRPHLSPPLQ QLLLPVLLAC AAHSTGALPR LCDVLQVLWE EQDQCLQELS REQTGDLGTE P QVPVGCCEMW DNISCPSSV PGRMVEVECP RFLRMLTSRN GSLFRNCTQD GWSETFPRPN LACGVNVDN SNEKRHSYLL KLVMTYVGY SSSLVMLLVA LGILCAFRRL HCTRNIIHMH LFVFSFILRAL SNFIKDAVLF SSDDVTYCDP HRAGCKLVMV LFQYICIMANY SWLLVEGLYL HTLLAISFFS ERKYLQGFVA FGWGSPIFV ALMAIARHFL EDVGCWDINA NASIWWIIRG PVILSILINF ILFINILRIL MRKLRTQETR GNEVSHYKRL ARSTILLIPL FGIHYIVFAF SPEDAMEIQL FFELALGSFQ GLVAVLYCF LNGEVQLEVQ KKWQQWHLRE FPLHPVASFS NSTKASHLEQ SQGTCRTSII	Homo sapiens	

311	4480	Somatostatin NM_001049 Receptor Type 1	atgttcccc atggcaccg ctcctctctc tcctctctc ctagcccaag cccggggcagc tgccgggaag gcggcgagc cagggggccc gggcgccg ctcgggacg catgggagag ccaggggcga atgcgtccca gaacgggacc ttgagcgag gccagggag cgcctacctg atctctttca tctactcct ggtgtgctg gtggggctgt gtgggaactc tatggtcctc tacgtgatcc tgcgtatgc caagatgaag acggccacca acatctacat cctaaatctg gccattgctg atgagctgct catgtcagc gtgccccttc tagtcacctc caggttggtg cgccactggc cttcggtgc gctgctctgc cgctcgtgc tcagcgtgga cgcggtcaac atgttcacca gcattctactg tctgactgtg ctcagcgtgg accgctacgt ggccgtgggtg catcccatca agcgggccc ctaccggcg cccatcgctg cccatcgctg caccggcgcc gtgtgggtgc tctcgtgct cgtcatcctg ctcattcgctg agcccgctca acgctggctg aacagcgacg gcaggtggc ttgcaacatg ctcattgccag agcccgctca acgctggctg gtgggcttcg tgtgtacac atttctcatg ggttcctgc tgcctgggtg gctatctgc ctgtgctacg tgcctcatc tgcctacatg tgctaaagc cgcattggtg cgcctggcag cagcgcaagc gctcgagcg caagatcac ttaatggtga cctcaaggc cgcctggctt gtcatctgct gtagtcctt ctacgtggtg cagctggtta acgtgttgc tgagcaggac gacggcacg ttagtcagct gtcggctc agacaactc agcgctctt tccaaagcat cctatgcctc atcctctatg gctttctctc agacacgct gtcggctc agcgctctt tccaaagcat cctatgcctc agctggatgg acaacggcg ggagggcg gttgactatt acgccaagc gctcaagagc cgtgctctca gtgtggaaga cttccaaact gagaacctg agtcggcg cgtcttcgt aatggcaact gcacgtccc gatacagc ctcctga MFNPGTASSP SSSPSPSGS YGILRYAKMK TATNIYILNL AIADELMLLS VPFLVTSTLL ISFIYSVVCL VGLCGNSMVI YVILRYAKMK TATNIYILNL AIADELMLLS VPFLVTSTLL RHWPFALLC RLVLSVDVN MFTSIYCLTV LSVDRYAVV HPIKAARYRR PTVAKVNLG VWVLSLLVL PIVVFSRTAA NSDGTACNM LMPEPAQRWL GFLLPVGAIC LCYVLIIAKM RMVALKAGWQ QRKRSERKIT LMVMMVMVF VICWMPFYV QLVNVEAEQD DATVSQLSVI LGYANSCANP ILYGFLSDNF KRSPQRILCL SWMDNAAEEP VDYYATALKS RAYSVEFQP ENLESGGVFR NGTCTSRIT L	Homo sapiens
312	4480	Somatostatin NP_001040.1 Receptor Type 1	atggacatgg cggatgagcc actcaatgga agccacacat ggctatccat tccatttgac ctcaatggct ctgtggtgtc aaccaacacc tcaaacacga cagagccgta ctatgacctg acaagcaatg cagtcctcac attcatctat ttgtggtct gcatcattgg gttgtgtggc aacacacttg tcatttatgt cctcctccgc tatgccaaga tgaagacat caccaacatt tacatcctca acctggccat cgcagatgag ccttctcatg tgggtctgct ttcttggct atgcagggtg cttgtgtcca ctggcccttt ggcaaggcca ttgcccgggt ggtcatgact gtggatggca tcaatcagtt caccagcatc tctgctgag cagtcacgga catcgaccga tacctggctg tgggtccacc catcaagtcg ggcaagtggga ggagacccc gagggccaag atgatcacca tgggtgtgtg gggagtctct ctgctggtca ccttgcccat catgatata gctgggctcc ggagcaacca gtgggggaga agcagctgca ccatcaactg gccaggtgaa tctggggctt ggtacacagg gttcatcacc tacacttca ttctgggtt cctgggtacc ctcaccatca tctgtctttg ctacctgttc attatcatca aggtgaagtc cctgggaatc cagtggtggct cctctaagag gaagaagtct gagaagaagg tcacccgaat ggtgtccatc gtggtggctg tcttctctt ctgctggctt ccttctaca tattcaactg ttcttccgtc	Homo sapiens
313	4481	Somatostatin NM_001050 Receptor Type 2	atggacatgg cggatgagcc actcaatgga agccacacat ggctatccat tccatttgac ctcaatggct ctgtggtgtc aaccaacacc tcaaacacga cagagccgta ctatgacctg acaagcaatg cagtcctcac attcatctat ttgtggtct gcatcattgg gttgtgtggc aacacacttg tcatttatgt cctcctccgc tatgccaaga tgaagacat caccaacatt tacatcctca acctggccat cgcagatgag ccttctcatg tgggtctgct ttcttggct atgcagggtg cttgtgtcca ctggcccttt ggcaaggcca ttgcccgggt ggtcatgact gtggatggca tcaatcagtt caccagcatc tctgctgag cagtcacgga catcgaccga tacctggctg tgggtccacc catcaagtcg ggcaagtggga ggagacccc gagggccaag atgatcacca tgggtgtgtg gggagtctct ctgctggtca ccttgcccat catgatata gctgggctcc ggagcaacca gtgggggaga agcagctgca ccatcaactg gccaggtgaa tctggggctt ggtacacagg gttcatcacc tacacttca ttctgggtt cctgggtacc ctcaccatca tctgtctttg ctacctgttc attatcatca aggtgaagtc cctgggaatc cagtggtggct cctctaagag gaagaagtct gagaagaagg tcacccgaat ggtgtccatc gtggtggctg tcttctctt ctgctggctt ccttctaca tattcaactg ttcttccgtc	Homo sapiens

Homo  
sapiens

P

314 4481 Somatostatin NP\_001041.1  
Receptor  
Type 2

tccatggcca tcagcccccac ccagccctt aaaggcatgt ttgactttgt ggtggtccctc  
acctatgcta acagctgtgc caaccctatc ctatatgctt tctgttctga caacttcaag  
aagagcttcc agaagtctct ctgcttggtc aaggtgagcg gcacagatga tggggagcgg  
agtgcacagta agcaggacaa atcccggtcg aatgagacca cggagaccca gaggaccctc  
ctcaatggag acctccaaac cagtatctga  
MDMADEPLNG SHTWLSIPFD LNSGVSTNT SNQTEPYIDL TSNVLTFTY FVVCILGCG  
NTLVIYVILR YAKMKTITNI YILNLAIAD E LFMGLPEFLA MQVALVHPFF GRAICRVMT  
VDGINQFTSI FCLTWMSIDR YLAVVHPKIS AKWRPRPTAK MITMAVWGS LVLILPIMY  
AGLRSNQWGR SSTINWPGE SGAWYTGFI YTFILGLFVP LTIICLCYLF IIKVKSSGI  
RVGSSKRKKS EKKVTRMYSI VVAVFICWL PFYIFNVSSV SMAISPTPAL KGMFDFVVVL  
TYANSCANPI LYAFLSDNEK KSFQNVLCV KVGTDGGER SDSKQDKSRL NETTETQRTL  
LNGDLQTSI

Homo  
sapiens

A

315 4482 Somatostatin NM\_001051  
Receptor  
Type 3

atggacatgc ttcatccatc atcgggtgccc acgacctcag aacctgagaa tgcctcctcg  
gcctggcccc cagatgccac cctgggcaac gtgtcggcgg gcccaagccc ggcagggctg  
gccgtcagtg gcgttcgat ccccttggtc tacctggttg tgtcgtggtt gggcctgctg  
ggtaactcgc tggatcata tgggtgctcg cggcacacgg ccagcccttc agtcaccaac  
gtctacatcc tcaacctggc gctggccgac gagctcttca tgtgggggct gcccttcctg  
gccgccaga acgcccctgc ctactggccc ttgggtccc tcaatgtgcc cctggtcatg  
gcggtggatg gcataacca gttcaccagc atattctgcc tgactgtcat gagcgtggac  
cgtaacctgg ccgtggtaca tcccaccgc tcggcccgct ggcgcacagc tccggtggcc  
cgcaaggta cgcggtgtg gtgggtggcc tcagccgttg tgggtgctgc cgtggtggtc  
ttctcgggag tgccccggcg catgagcacc tgccacatgc agtgccccga gccggcgcg  
gcctggcgag ccggcttcat catctacacg gccgcactgg gttcttcgg gccgctgctg  
gtcatctgcc tctgctacct gctcatcgtg gtgaaggtgc gctcagctgg gcgccgggtg  
tgggcaacct cgtgccagcg gcgccggcg tcggaacgca gggtcacgag catggtggtg  
gccgtggtgg cgctcttctg gctctgctgg atgcccttct acgtgctcaa catcgtcaac  
gtggtgtgcc cactgccccg ggagcctgcc ttctttgggc tctacttctt ggtggtggcg  
ctgccctatg ccaacagctg tgccaaacccc atcctttatg gcttctctc ctaccgcttc  
aagcaagggt tccgcagggt cctgctgagg cctcccgcc gtgtgcgcag ccaggagccc  
actgtggggc ccccgagaa gactgaggag gaggatgagg agggaggaga tggggaggag  
agcaggagg ggggcaagg gaaggagatg aacggccggg tcagccagat cagcagcct  
ggcaccagcg ggcaggagcg gccgccagc agagtggcca cgaaggagca gcagtccta  
ccccaaagg cttccactgg ggagaaatcc agcacagatgc gcatacagta cctgtag  
MDMLHPSSVS TTSEPENASS AWPPDNLGN VSAGSPAGL AVSGVLIPLV YLVVCWVGLL  
GNSLVIYVVL RHTASPSVTN VYILNLALAD ELFMLGLPFL AAQNALSYWP FGSIMCRLLM  
AVDGINQFTS IFCLTMSVD RYLAVVHPT R SARWRTAPVA RTVSAVWVA SAVVLPVW  
FSGVPRGMST CHMQWPEPAA AWRAGFIIT AALGFFGPLL VICLCYLLIV VKVRSAGRRV  
WAPSCQRRR SERRVTRMV AVVALFVLCW MPFVLNIV WVCPLPEPA FFLYFLVVA  
LPYANSCANP ILYGFLSYRF KQGFRRVLLR PSRRVRSQEP TVGPPEKTEE EDEEEDGEE  
SREGGKGKEM NGRVSOITQP GTSGQERPPS RVASKEQQLL PQEASTGEKS STMRIISYL

Homo  
sapiens

P

316 4482 Somatostatin NP\_001042.1  
Receptor  
Type 3

317	4483	Somatostatin NM_001052 Receptor Type 4	atgagcgccc cctcgacgct gccccccggg ggcgaggaag ggctggggag ggcctggccc A tctgcagcca atgccagtag cgctccggcg gaggcggagg aggcggtggc gggcccgggg gacgcgggg cgcggggcat ggtcgctatc cagtgcattc acgcgctggt gatcctggg gggctgggg gcaacgcctt ggtcatcttc gtgaccttc gtaacgcaa gatgaagacg gtacaccaca tctacctgct caacctggcc gtagccgacg agctctcat gctgagcgtg cccttcgtgg cctcgctggc cgccctgcgc cactggccct tgggtccgt gctgtgccg gcggtgctca gcgtcgacgg cctcaacatg ttaccacagc tcttctgtct caccgtgctc agcgtggacc gctacgtggc cgtgggtgac cctctgcgc cgcgaccta ccggcgccc agcgtggcca agctcatcaa cctggggcgtg tggctggcat cctgttggc cactctccc atcgccatct tcgcagacac cagaccggct cgcgcgggc aggcggtggc ctgcaacctg cagtggccac acccgccctg tccggcagtc ttcgtggtc acacttctt gctgggcttc ctgtgcccc tgctggccat tggcctgtgc taccgttca cgtgggcaa gatgcgcgc gtggccctgc gcgtggctg gcagcagcg aggcgtcgg agaagaaat caccagcgtg gtgctgatgg tcgtggctgt cttgtgtc tgctggatgc ctttctact ggtgcagctg ctgaacctcg tcgtgaccag cctgatgac accgtcaac acgtgtccct taccctcagc tatgccaa gctgcgcaa cctattctc tatggcttc tctccgcaa cttccgcca tcttccagc ggttctctg cctgcgtgc tgctcctgg aagtgctgg agtgctgag gaggagcccc tggactacta tggcactgct ctcaagagca aagtggggc aggtgcatg tgccccccac taaaatgcca gcaggaagcc ctgcaaccag aaccgggccc caagcgcac ccctcacca ggaccaccac cttctga	Homo sapiens
318	4483	Somatostatin NP_001043.1 Receptor Type 4	MSAPSTLPPG GEEGLGTAWP SANASSAPA EAEAVAGPG DARAAGMAI QCIYALVCLV P GLVGNALVIF VILRYAKMT ATTIIYLLNLA VADELFMLSV PFVASSALR HWFGSVLCR AVLSVDGLNM FTSVFCLTVL SVDRYVAVVH PLRAATYRRP SVAKLINLGW WLASLIVTLP IAIFADTRPA RGGQAVACNL QWHPAWSAV FVYTFLLGF LLPVLAIGLC YLLIVGKMRA VALRAGWQQR RRSEKKITRL VLMVVVVFVL CWMFFYVQL LNLVVTSLDA TVNHVSLILS YANSCANPIL YGFLSDNFRF SFQVLCRLC CLLEGAGGAE EEPLDYATA LKSKGGAGCM CPPLKCQQA LQPEGRKRI PLTRTTF	Homo sapiens
319	4484	Somatostatin NM_001053 Receptor Type 5	atggagcccc tgttcccagc ctccacgccc agctggaacg cctcctccc gggggctgccc A tctggaggcg gtgacaacag gacgtgggtg gggccggcgc cctcggcagg gggccgggccc gtgctgggtgc ccgtgctgta cctgctggtg tgtcgggccg ggcggggcg gaacacgctg gtcatctacg tgggtgctgc cttcgccaa atgaagaccg tcaccaaat ctacattctc aacctggcag tggccgacgt cctgtacatg ctgggggctgc cttcctggc cagcagaac gcgcgtcct tctggccctt cgcccccgtc ctgtgcgcgc tggatcatg cctggacggc gtcaaccagt tcaccagtgt cttctgctg acagtgcga cgtggaccg ctacctggca gtggtgcacc cgctgagctc ggcccgctgg cgcccgccgc gtgtggcaa gctggcgagc gcgcggcctt ggtcctgtc tctgtgcatg tgcgtgccg tctgtgtgt cgcggacgtg caggagggcg gtacctgcaa cgccagctgg ccggagcccg tggggctgtg gggcgccgtc ttcatcatct acacggcctt gctgggcttc ttcgcgcgc tgcgtgtcat ctgctgtgc tacctgtca tctgtgtgaa ggtgagggcg gcgggctgac gcgtgggctg cgtgcggcg cgctcggagc ggaaggtgac gcgcattgtg ttggtggtg tgctggtgtt tgcgggatgt tggctgccct tcttaccgt caacatgct cactggccc tggcgctgcc ccaggagccc	Homo sapiens

Homo  
sapiens

P

Somatostatin NP\_001044.1

4484

320

Receptor  
Type 5

gcctcgcgcg gcctctactt ctctgtgggc atctctctct acgccaacag ctgtgccaac  
 cccgtcctct acggcttctt ctctgacaac ttccgcccaga gcttccacaa ggtctctgtgc  
 ctccgcaagg gctctgtgtc caaggacgct gacgccacgg agccgcgtcc agacaggatc  
 cggcagcagc aggaggccac gccgcccgcg caccgcgcgg cagccaacgg gcttatgcag  
 accagcaagc tgtga  
 MEPLFPASTP SWNASSPGAA SGGGDNRTL VPAPSAGARA VLVPVLYLLV CAAGLGNTL  
 VIYVLRFAK MXTVTNIYIL NLAVADVLYM LGPLFLATQN AASFWPGPV LCRLVMTLDG  
 VNQTSVFCL TVMSVDRLA VVHPLSSARW RRPVRKILAS AAANVLSLCM SLPLLVFADV  
 QEGGTCNASW PEPVGLMGAV FIYTAVLGF FAPLLVICLC YLLIVVKVRA AGVRVGCVR  
 RSRKVTMVL LVVVLVFAAG WLFFFTVNI NLAVALPQEP ASAGLYFFV ILSYANSCAN  
 PVLVGLSDN FRQSFQKVL LKRGSGAKDA DATEPRPDRI RQQEATPPA HRAAANGLMQ

TSKL

Homo  
sapiens

A

Tachykinin NM\_001058

4552

321

Receptor 1

aattcagagc caccgcgggc aggcggggcag tgcatccaga agcgtttata ttctgagcgc  
 cagttcagct ttcaaaaaga gtgctgcccc taaaaagcct tccaccctcc tgtctgcttt  
 agaaggaccc tgagcccacg gcgccagcca caggactctg ctgcagaggg gggttctgta  
 cagatagtag gctttacgcc tagcttcgaa atggataacg tctcccgggt ggactcagac  
 ctctccccc aaatctccac taacacctcg gaacccaatc agttcgtgca accagcctgg  
 caaattgtcc ttggggcagc tgctacacg gtcatgtggt tgacctctgt ggtgggcaac  
 gtggtagtga tgtggatcat cttagccac aaaaagaatga ggacagtgc gaactatttt  
 ctggtgaacc tggccttcgc ggaggcctcc atggctgcat tcaatacagt ggtgaacttc  
 acctatgctg tccacaacga atggtactac ggctgttct actgcaagt ccacaacttc  
 ttcccatcg cgcgtgtctt cgcagatc tactccatga cggctgtggc ctttgatagg  
 tacatggcca tcatacatc cctccagccc cggctgtcag ccacagccc caaagtggc  
 atctgtgtca tctgggtcct ggtctctctg ctggccttc atgacgaat tccgaacaag  
 acagagacca tgccagcag agtcgtgtgc atgctgctga tctacttct cccctgtctg  
 atttatgaga aagtgtacca catctgtgtg actgtgctga tctacttct cccctgtctg  
 gtgattggct atgcatacac cgtagtggga atcacactat ggccagtgga gatccccggg  
 gactcctctg accgtacca cgaagcaagtc tctgccaagc gcaagtggt caaaatgatg  
 attgtgtgg tgtgcacct cgcctctgc tggctgacct tccacatctt ctctcctctg  
 ccctacatca accagatct ctacctgaag agtttatcc agcaggtcta cctggccatc  
 atgtgctgg ccatgagct caccatgtac aacctcatca tctactgtc cctcaatgac  
 aggttcctg tgggcttcaa gcatgcttc cgggtgtgccc ccttcacag cggcggcgac  
 tatgaggggc tggaaatgaa atccaccgg tatctccaga cccagggcag tgtgtacaaa  
 gtcagcgcc catctccaca gtggtgaggg cccacagagg cccagcagag ggagccagag  
 gacggcccca aggccacac ctgctccctg gacctgacct ccaactgctc ttcacgaagt  
 gactccaaga ccatgacaga gagcttcagc ttctcctcca atgtgctctc ctaggccaca  
 ggccctttgg caggtgcagc cccactgccc ttgacctgc ctccctcat gcatggaaat  
 tcccttcac tggaaacctc agaaacaccc tcacactggg acttgcaaaa aggttcagta  
 tgggttaggg aaaaattcc atccttgagt caaaaaatct caattcttcc ctatctttgc  
 caccctcatg ctgtgtgact caaaccaaat cactgaactt tgctgagcct gtaaaataaa  
 aggtcgagc agcttttct caagagccca atgcatocca ttcttggaag tgactttggc



322	4552	Tachykinin Receptor 1	NP_001049.1	tgcatgcgag tgctcattc aggatg	QIVLWAAAYT VIVVTSVUGN VVVMWIIIAH P	Homo sapiens
				MDNVLPVDS LSPNISTNTS EPNQFQPAW	GLFYCKFHFNF FPIAAVFASI	
				KRMRTVTNYF LVNLAFAEAS MAEFTVNE	TYAVHNEWYY LAFPOGYYST TETMPSRWVC	
				YSMTAVAFDR YMAIIHPLQ RLSATATKV	ICVIWVLALL	
				MIWPEHPNK IYKVIHICV TVLIYFLPLL	VIGYAYTVVG ITLWASEIPG DSSDRYHEQV	
				SAKRKVWQM IVVCTFAIC WLPFHIFLL	PYINPDLYLK KFIQVYLAI MWLAMSSTMY	
				NPIIYCCIND RFLGFKHAF RCCPFISAGD	YEGLEMKSTR YLQTQGSVYK VSRLETTIST	
				VVGAHEEPE DGPKATPSSL DLTSNCSSRS	DSKTMTESES FSSNVLS	
323	4687	Thrombin Receptor	NM_001992	ggcggggggc gcacagagcc agaggggctt	gcgagcggcg gctgaggggac cgcgggggag A	Homo sapiens
				ggggcggcag cggctccagc gcagagactc	tcactgcacg ccgaggggccc cttcctcgct	
				cgcggcggcgc gaccggcgc accctgctt	ccccggcccc ctaaccggccc cagacacagc	
				gctgcggcag ggtcgcttg accctgactt	taccctggg caccctgcgc tctgcctgcc	
				gcgaagaccg gctccccgac cgcgaagat	caggagagag ggtgaagcgg agcagccccg	
				ggcggggcag cctccggag cagcggcgg	cagagccccg gacaaatgggg cgcggggcggc	
				tgctgctggt ggccgctgc ttcagtctgt	gcggccccgt gttgtctgcc cgcacccggg	
				ccgcgaggcc agaatacaaa gcaacaaatg	ccacctaga tccccgggtca tttcttctca	
				ggaaccccaa tgataaatat gaaccatttt	gggaggatga ggagaaaaat gaaagtgggt	
				taactgaata cagattagtc tccatcaata	aaagcagtcct tctcaaaaa caactcctg	
				cattcatctc agaagatgcc tccgatat	tgaccagctc ctggctgaca ctctttgtcc	
				catctgtgta caccggagtg tttgtagtca	gcctccccact aaacatcatg gccatcgttg	
				tggtcatcct gaaaatgaag gtcaagaagc	cggcgggtggt gtacatgctg cactcggcca	
				cggcagatgt gctgtttgtg tctgtgctcc	cctttaagat cagctattac tttccggca	
				gtgattggca gtttggtgtc gaattgtgtc	gcttcgtcac tgcagcattt tactgtaaca	
				gtacggcctc tatcttgctc atgacagtca	cgggtttctg cgcgttggtgt	
				atcccatgca gtccctctcc tggcgtactc	tgggaagggc ttccttctact tgtctggcca	
				tctgggcttt ggccatcgca ggggtagtgc	ctctcgtcct caaggagcaa accatccagg	
				tgcgggggct caacatcact accgtgcatg	atgtgctcaa tgaacccctg ctcgaaggct	
				actatgccta ctacttctca gccctctctg	ctgtcttctt ttttgtgccg ctgatacttt	
				ccacgggtctg ttatgtgtct atcattcgat	gtcttagctc ttccgcagtt gccaaaccga	
				gcaagaagtc ccgggctttg ttccgtgcag	ctgctgtttt ctgcattctt atcatttgct	
				tcggacccac aaacgtcctc ctgattgcgc	attactcatt cctttctcac acttccacca	
				cagaggctgc ctactttgcc tacctcctct	gtgtctgtgt cagcagcata agctcgtgca	
				tgcacccctc aattactat tacgcttctc	ctgagtgcga gaggtacgtc tacagtatct	
				tatgttgcaa agaaagtcc gatccagca	gtataacag cagtgggcag ttgatggcaa	
				gtaaaaatgga tacctgtctc agtaacctga	ataacagcat atacaaaaag ctgttaactt	
				agaaaaaggg actgctggga ggttaaaaaa	ggttttat ataaagtgaat accctgagga	
				ttctattagt cccaccccaa actttattga	ttcacctcct aaacaacag atgtacgact	
				tgcatacctg ctttttatgg gagctgtcaa	gcatgtattt ttgtcaatta ccagaagat	
				aacaggacga gatgacgggtg ttattccaag	ggaatattgc caatgtaca gtaataatg	
				aatgtcactt ctggatatag ctaggtgaca	tatacatact tacatgtgtg tatatgtaga	

324	4687	Thrombin Receptor	NP_001983.1	<p> tgtatgcaca cacatatatt atttgcagtg cagtatagaa taggcacttt aaaacactct  ttccccgcac ccagcaatt atgaaaaataa ttctctgattc cctgatttaa tatgcaaaagt  ctaggttggt agagtttagc cctgaacatt tcatggtgtt catcaacagt gagagactcc  atagtttggg ctgtaccac ttttgcaaat aagtgtattt tgaattgttt tgacggcaag  gtttaagtta ttaagaggta agacttagta ctatctgtgc gtagaagtcc tagtgttttc  aattttaaac atatccaagt ttgaattcct aaaattatgg aacagatga aaagcctctg  tttgatatg ggtagatttt tttacatttt acacactgta cacataagcc aaaactgagc  ataagtctc tagtgaatgt aggtctggctt tcagagtagg ctattcctga gagctgcatg  tgtccgcccc cgatggagga ctccaggcag cagacacatg ccaggggccat gtcagacaca  gattggccag aaaccttctt gctgagcctc acagcagtga gactggggcc actacatttg  ctccatctc ctgggattgg ctgtgaactg atcatgttta tgagaaactg gcaaaagcaga  atgtgatc ctaggaggtat atgacctga agacttctc tacccatctt aaaaacaacg  aaagaaggca tggacttctg gatgcccac cactgggtgt aaacacatct agtagttgtt  ctgaaatgtc agttctgata tggaaagcacc cattatgctg tgtggccact ccaataggtg  ctgagtgta agagtggat aagacagaga cctgcccctc agagcaaaagt agatcatgca  tagagtgtga tgtatgtgta ataaatatgt ttcacacaaa caaggcctgt cagctaaaga  agtttgaaca ttgggtttac ttttcttgt gttataaact taatgaaaac aatgcagtac  aggacatata ttttttaaaa taagtctgat ttaattgggc actatttatt tacaatgtt  ttgtcaata gattgctcaa atcagggttt cttttaagaa tcaatcatgt cagctgtgctt  agaaataaca gaagaaaata gaattgacat tgaatctag gaaaattatt ctataatttc  cattactta agacttaatg agacttttaa agcatttttt aacctcctaa gtatcaagta  tagaaaaatct tcatggaatt cacaagaata tttggaaatt aggttgaaac atatctctta  tcttacgaaa aaatggtagc attttaaaca aaatagaaag ttgcaaggca aatgtttatt  taaaagagca ggccaggcgc ggtggctcac gcctgtaac ccagcacttt gggaggctga  ggcgggtgga tcacgaggtc agagatcga gaccatcctg gctaacacgg tgaaacccgt  ctctactaaa aatgcaaaaa aaattagccg ggcgtggtgg caggcactgt tagtcccagc  tactcgggag gctgaggcag gagactggcg tgaacccagg aggcggacct tgtagtgagc  cgagatcgcg ccaactgtgt ccagcctggg caacagagca agactccatc tc  MGPRRL1LVA ACFSLCGPLL SAPTRARRPE SKATNATLDP RSFLLRNPD KYEPFWEDEE P  KNESGLTEYR LVSINKSSPL QKQLPAFISE DASGYLTSSW LTLFVPSVYT GVFFVSLPLN  IMAIWVFIK MKVKKPAVVY MLHLATADVL FVSVLPFKIS YYFSGSDWQF GSELCRFVTA  AFYCNMYASI LLMTVISIDR FLAVVYPMQS LSWRTLGRAS FTCLAIWALA IAGVVPVLVK  EQTIQVPLN ITTCHDVINE TLLEGYYAYY FSAFSAVFFF VPLIISTVCY VSIIRCLSSS  AVANRSKSR ALFLSAAVFC IFICFGPTN VLLIAHYSFL SHTSTTEAY FAYLLCVCVS  SISSCIDPLI YYYASSEQR YVYSILCKE SSDPSSYNSS GQLMASKMDT CSSNLNNSIY  KKLLT </p>	Homo sapiens
325	4734	Thyrotropin Releasing Hormone Receptor	NM_003301	<p> tagcttcaag ccactgaaga tggaaaaaga gacagtcagt gaactgaac aaacacagct A  tcagccacga gcagtggtgg ccttagaata ccaggtggct accatcttac ttgtactcat  tatttgggc ctgggcattg taggcaacat catggtatgc ctggttgta tgagaaccaa  gcacatgagg acccccacaa actgctacct ggtgagcctg gcagtagctg atctcatggt  cttgggtggc gcaggcctcc ccaacataac agacagtatc tacggttctt ggggtctatgg </p>	Homo sapiens

244/448

326	4734	Thyrotropin Releasing Hormone Receptor	NP_003292.1	ctatgttgga tgcctctgca ttacttacct ccagtatttg ggaattaatg catcctcttg ttcaataaca gcctttacca ttgagaggtg catagaatc tgtcaccoca tcaaaagccca gtttctctgc acattttcca gagccaaaaa gattatcatc tttgtctggg ctttcacatc tctttactgt atgctctggt tcttcttgct ggatctcaat attagcacct acaaagatgc tattgtgata tcctgtggct acaagatctc caggaattac tactcaccta ttacctaata ggactttggt gtcttttatg ttgtgccaat gatctggct accgtctct atggattcat agctagaatc cttttcttaa atccattcc ttcatatcct aaagaaaaa ctaagacatg gaaaaatgat tcaaccatc agaacacaaa tctgaatga aatacctcta atagatgttt caacagcaca gtatcttcaa ggaagcaggt caccaagatg ctggcagtgg ttgtaattct gtttgccctt ttatggatgc cctacaggac tctagtgtt gtcaactcat tctctccag tcctttccaa gaaaattggt tttgtctct ttgcagaatt tgcatttatc tcaacagtgc catcaacccg gtgatttaca atctcatgtc ccagaaattc cgtgcagcct tcagaaagct ctgcaactgc aagcagaagc caacagagaa acctgctaac tacagtgtgg cctaaataa cagcgtcatc aaggagtgc accatttcag cacagagctt gatgatata ctgtcactga cattacctg tctgccaaa aagtgtctt tgatgacacc tgcctggctt ctgaggtatc ctttagccaa agttgattca tgaattagaa gaaaatgat gacaaagaaa ttgagaatct gtgcagtcac caacaaaagg gagaacatgg ccaatagtca tatgtgaaga cagagcagat cagcttttgt caatgctcta acaaaccc	4944	Angiotensin II Type 1 Receptor	NM_000685	atccagagct gcctcctcgc caatgattcc agcgcctgac agccaggacc ccaggcagca A gagagtgaaca ggacgtctgg accggcgcgc cgctagcagc tctgccgggc cgcgcggtg atcgatgggg agcggctgga gcggaccag gcgagcccg cgacagccg ggacgccgag gcggcgggcg ggagaccgc accagcgag ccggccctcg gcgggacgtg acgcagcgcc cgggcgcgcg gttgatatt tgacaaaattg atctaaaatg gctgggtttt tatctgaata actcactgat gccatcccg aaagtgcgca ccagggtgat ttgatatagt gtttgaaca aatcgacc aggtgatcaa aatgattctc aactctcta ctgaagatgg tattaaga atccaaagatg attgtcccaa agctggaagg cataattaca tattgtcat gattcctact ttatacagta tcatcttgtt ggtgggaata ttggaaaaca gcttggtggt gatagtcatt tacttttata tgaagctgaa gactgtggcc agtgttttct ttttgaattt agcactggct gacttatgct ttttactgac ttgccaacta tgggtgtctt acacagctat ggaataccgc tgcccccttg gcaattacct atgtaagatt gtttcagcca gcgtcagttt caacctgtac gctagtgtgt tctactcac gtgtctcagc attgatcgat acctggctat tgttaccoca atgaagtccc gccttcgacg caaatgctt gtagccaaag tcacctgcat catcattgg ctgctggcag gcttggccag tttgccagct ataaccatc gaaatgtatt tttcattgag aacaccaata ttacagtttg tgccttccat tatgagtcctt aaaaattcaac ccttccgata	327			catcctcttg tcaaaagccca ctttcacatc acaaagatgc tttacctaata atggattcat ctaagacatg atagatgttt ttgtaattct tctctccag tcaacagtgc tcagaaagct cctaaataa ctgtcaactga ctgtcactga ctgaggtatc ttgagaatct cagagcagat MRTKHMRTPT P ASSCSITAF YKDAIVISCG SKTWKNDSTH FLSPFQENW ALNYSVIKES SEVSFSQS	Homo sapiens
327	4944	Angiotensin II Type 1 Receptor	NM_000685	atccagagct gcctcctcgc caatgattcc agcgcctgac agccaggacc ccaggcagca A gagagtgaaca ggacgtctgg accggcgcgc cgctagcagc tctgccgggc cgcgcggtg atcgatgggg agcggctgga gcggaccag gcgagcccg cgacagccg ggacgccgag gcggcgggcg ggagaccgc accagcgag ccggccctcg gcgggacgtg acgcagcgcc cgggcgcgcg gttgatatt tgacaaaattg atctaaaatg gctgggtttt tatctgaata actcactgat gccatcccg aaagtgcgca ccagggtgat ttgatatagt gtttgaaca aatcgacc aggtgatcaa aatgattctc aactctcta ctgaagatgg tattaaga atccaaagatg attgtcccaa agctggaagg cataattaca tattgtcat gattcctact ttatacagta tcatcttgtt ggtgggaata ttggaaaaca gcttggtggt gatagtcatt tacttttata tgaagctgaa gactgtggcc agtgttttct ttttgaattt agcactggct gacttatgct ttttactgac ttgccaacta tgggtgtctt acacagctat ggaataccgc tgcccccttg gcaattacct atgtaagatt gtttcagcca gcgtcagttt caacctgtac gctagtgtgt tctactcac gtgtctcagc attgatcgat acctggctat tgttaccoca atgaagtccc gccttcgacg caaatgctt gtagccaaag tcacctgcat catcattgg ctgctggcag gcttggccag tttgccagct ataaccatc gaaatgtatt tttcattgag aacaccaata ttacagtttg tgccttccat tatgagtcctt aaaaattcaac ccttccgata					Homo sapiens				

328	4944	Angiotensin II Type 1 Receptor	NP_000676.1	<p> gggctgggcc tgacaaaaa tatactgggt ttctgtttc cttttctgat cattttaca  agttatactc ttatttggaa ggcctaaag aaggcttatg aaattcagaa gaacaaaacca  agaaatgatg atatttttaa gataattatg gcaattgtgc tttttctttt tttttctgtg  attccccacc aaatattcac tttttctggat gtattgattc aactaggcat catacgtgac  tgtagaattg cagatattgt ggacacggcc atgcctatca ccattttgat agcttatttt  aacaattgcc tgaatcctct tttttatggc ttctgggga aaaaatttaa aagatatattt  ctccagcttc taaaatatat tccccaaa gccaaatccc actcaaacct tcaacaaaa  atgagcacgc tttcctacgg cccctcagat aatgtaagct catccacca gaagcctgca  ccatgttttg aggttgatg acatgttcga aacctgtcca taaagtaatt ttgtgaaaga  aggagcaaga gaacattcct ctgcagcact tcaactacca atgagcatta gctacttttc  agaaattgaag gagaaaatgc attatgtgga ctgaaccgac ttttctaaag ctctgaacaa  aagcttttct ttccttttgc aacaagacaa agcaaaagcca cattttgcat tagacagatg  acggctgctc gaagaacaat gtcagaaact cgatgaatgt gttgatttga gaaattttac  tgacagaaat gcaatctccc tagcctgctt ttgtcctgtt attttttatt tccacataaa  ggtatttaga atataattaa tctgttagagg agcaacagga gatgagagtt ccagatttgtt  ctgtccagtt tccaaaggcc agtaaaagttt tctgtccggt ttccagctat tagcaactgt  gctacacttg cactgtgtac tgcacatttt gtacaaagat atgctaaagca gtatcgtgca  agttgacagat ctttttttga aattcaacct gtgtcttata ggtttacact gccaaaacaa  tgcccgtgaag atggcttatt tgtataatgg tgttactaaa gtcacatata aaagttaaac  tacttgtaaa ggtgctgcac tgggtcccaag tagtagtgct ctcctagtag attagtttga  tttaatatct gagaaagtga tatagtttgt ggtaaaaaga ttatatatca taaagtatgc  cttctctgtt aaaaaaagta tataattctac acatatatat atatgtatat ctatatctct  aaactgctgt taattgatta aaactgggca aggttatatt tactttaaaa taaaaaat  ttattgc </p>	Homo sapiens
329	4946	Angiotensin II Type 2 Receptor	NM_000686	<p> MIINSSSTEDG IKRIQDDCPK AGRHNYIFVM IPTLYSIIFV VGIFGNSLVV IVIYFYMKLK P  TVASVFLNL ALADLCFLLT LPLMAVYTAM EYRWPFNGYL CKIASASVSF NLYASVFLLT  CLSIDRYLAI VHPMKSLRR TMLVAKVTCI IWLLAGLAS LPALHHRNVF FIENTNITVC  AFHYESQNST LPIGLGLTKN ILGFLFPFLI ILTSYTLIWK ALKKAYEIQK NKPRNDDIFK  IIMAILVFFF FSWIPHQIFT FLDVLIQLGI IRDCRIADIV DTAMPITICI AYFNNCLNPL  FYGFLGKKFK RYFLQLLKYI PPKAKSHSNL STKMSTLSYR PSDNVSSSTK KPAPCFEVE  acgtccacgc gctgagaga acgagtaagc aagaattcaa agcattctgc agcctgaatt A  ttgaaggagt gtgtttaggc actaagcaag ctgatttatg ataactgctt taaacttcaa  caaccaaagg cataagaact aggagctgct gacatttcaa tatgaagggc aactccaccc  ttgcccactac tagcaaaaac attaccagcg gtcttcactt cgggctgtg aacatctctg  gcaacaatga gctacacttg aactgttcac agaaaccatc agataagcat tttagatgcaa  ttcctattct ttactacatt atattgttaa ttggtattct ggtcaaatatt gtcgtgggta  cactgttttg ttgtcaaaag ggtcctaaaa aggtttctag caatacatc ttcaacctcg  ctgtggctga tttactcctt ttggctactc ttctctatg ggcaacctat tattcttata  gatagactg gctcttttga cctgtgatg gcaaaagttt ttgttctttt cttacctga  acatgtttgc aagcattttt ttatcacct gcatgagtg tgataggtag caatctgtca  tctaccctt tctgtctcaa agaagaaatc cctggcaagc atcttatata gttcccttg </p>	Homo sapiens

330	4946	Angiotensin II Type 2 Receptor	NP_000677.1	<p>           tttggtgtat ggctgtttg tctcattgc caacatttta ttttcgagac gtcagaacaa            ttgaatactt agtagtaat gcttgatta ttgcttccc acctgagaaa tatgccaat            ggtcagctgg gattgctta atgaaaaata tcttggtttt accatccct ttaataattca            tagcaacatg ctatttttga attagaaaaa acttactgaa gacgaatagc tatgggaaga            acaggataac ccgtgaccaa gtccctgaaga tggcagctgc tgttggttctg gccttcata            tttggtgcct tcccttccat gtctgacct tcttgatgc tctggcctgg atgggtgtca            ttaatagctg cgaagtata gcagtcatgg acctggcact tcttttggc atcctcttgg            gattcaccaa cagctgcgtt aatccgtttc tgtattgttt tgttggaac cggttccaac            agaagctccg cagtgtgttt aggtttccaa ttacttggct ccaagggaag agagagagta            tgtcttgccg gaaaagcagt tctcttagag aaatggagac ctttgtgtct taaacggaga            gcaaaatgca tgtaataaac atggctactt gctttgaggc tcaccagaat tatttttaag            tggttttaat aaataataa aatttccct aatctttct gaatcttctg aaacaaaatg            taactatgtt tatcgtccag tgactttcag gaatgcccc tatgtttcta tatgtttgta            caagatttca ttggtgagac atatttaca cctagaagta actggtgata tatctcaaat            tgtaattaat aatagattgt gaataatgat ttggggattc agatttctct ttgaacatg            cttgtgttct ttagtgggtt tttatatcca tttttatcag gatttctct tgaaccagaa            ccagctttc aactcattgc atcatttaca agacaacatt gtaagagaga tgagcacctc            taagttgagt atattataat agatttagtac tggattattc aggttttag catatgcttc            ttbaaaaacy ctataaatta tatttctct tgcatttcaact tgagtggagg ttatagtta            atctataact acatattgaa tagggctagg aatatagatt aaatcatact cctatgcttt            agcttatttt tacagttata gaaagcaaga tgtactataa catagaattg caatctataa            tatttgtgtg ttcactaaac tctgaataag cactttttta aaaactttct actcatttta            atgattgttt aaaggtttct atttctctg atactttttt gaaatcagta aacactgtgt            attgtgttaa aatgtaaaag tcacttttca cactcttgac tttttagatg tgcgtctttg            atatatagga cattgatttg atttttatta ttaactgtttt ggttctgggt tgtttcctaa            aatatctggg tggcttaaaa aaaactcttt aacttgtaaa aaacccctaa ctggcatagg            aaatggtatc cagaatggaa ttttgctaca tggggtctgg gtgggggcaa agagacccag            tcaattacat gtttggtacc aagaaaggaa cctgtcaggg cagtacaaat tgactttgaa            aatatatacc gtgggggtag ttttacccta tatctataaa cactgtttgt tccagaatct            gtatgattct atggagctat ttbaaaccaa ttgcaggtct aga            MKGNSTLATT SKNITSLHF GLVNISGNNE STLNCQKPS DKHLDAIPIL YYIIFVIGFL P            VNIVVTILFC CQKPKKVS IYIFNLAVD LLLATLPLW ATYYSRYDW LFGPVMCKVF            sapiens            GSFLTNMFA SIFFITCMV DRYQSVIYPF LSQRNPWQA SYIVPLVWCM ACLSSLPTFY            FRDVRTIEYL GWNACIMAF PEKYAQWSAG IALMKNILGF IIPLIFIATC YFGIRKHLK            TNSYGNRIT RDQVLKMAA VVLAFLIWL PFHVLTFDLA LAWMGVNSC EVIAVIDLAL            PFAILLGFTN SCVNPFLYCF VGNRFQQLR SVFRVPITWL QGKRESMSR KSSSLREMET            FVS         </p>	Homo sapiens
331	5072	Pyrimidinerg ic Receptor P2Y4	NM_002565	<p>           atggccagta cagagtcctc cctgttgaga tccctaggcc tcagcccagg tctctggcagc A            agtgaggagg agctggactg ttggtttgat gaggatttca agttcatcct gctgctgtg            agctatgcag ttgtcttctg cctgggcttg ggccttaacg ccccaacct atggctcttc            atcttcgoc tccgacctg ggatgcaacg gccacctaca tgttccacct ggcattgtca         </p>	Homo sapiens

332	5072	Pyrimidinerg NP_002556.1 ic Receptor P2Y4	gacaccttgt atgtgctgtc gctgcccacc ctcatctact attatgcagc ccacaaccac tggccctttg gcactgagat ctgcaagttc gtccgcttcc ttttctattg gaacctctac tgacagtgc ttttctcac ctgcatcagc gtgcaccgt acctgggcat ctgccacca cttcgggac tacgtgggg ccgcccctgc ctgcaggcc tctctgctt ggcagtttgg ttgtcgtag ccggtgctt cgtgcccac ctgtttttg tcacaaccag caacaaaggg accaccgtcc tgtgccatga caccactgg cctgaagagt ttgaccacta tgtgcacttc agctcggcg tcatgggct gtcttttggc gtgcccctgc tggtaactct tgtttgctat ggactcatgg ctgctgctt gtatcagccc ttgccaggct ctgcacagtc gtcttctcgc ctccgctctc tccgcacct agctgtggtg ctgactgtct ttgctgtctg cttcgtgctt ttccacatca ccgcacct ttactacctg gccaggctgt tggaaagtga ctgccagta ctgaacattg tcaactgtgt ctataaagtg actcggcccc tggccagtgc caacagctgc ctggatcctg tgcctactt gctcactggg gacaaatata gactcagct ccgtaagctc tgtgtgtgtg gcaagcccca gcccgcagc gctgcctctt cctggcact agtgtccctg cctgaggata gcagctgcag gtggcgggcc acccccagg acagtagctg ctctactcct agggcagata gattgtaa MASTESSLLR SLGLSPGGS SEVELDCWFD EDFKIFILLPV SYAVVFLVGL GLNAPTILWLF P IFRLRPWDAT ATYMFHLALS DTLYVLSLPT LIYYAAAHNH WPFTEICKF VRFLFYWNLY CSVLFLTCIS VHYRLGICHP LRALRWGRPR LAGLLCLAVN LVVAGCLVFN LFFVTTSNKG TTVLCHDTRR PEEFDHYVHF SSAVMGLLFG VPCLVTLVY GLMARLYQP LPGAQSSSR LRLRTIAVW LTFVAVCFVP FHITRTIYVL ARLEADCRV LNIWVYKV TRPLASANS IDPVLVLLTG DKYRRQLRQL CGGKQPRT ASSLALVSL PEDSSCRWAA TPQDSSCSTP RADRL	Homo sapiens
333	5117	Vasopressin V1A Receptor	taattgcttg aaggattttt tccagacagg tggctctggaa acctttacc tattaccttc A catccctgaa ccatttcaat cttctgcctc ctggatatct tggagaaaat gaaccaaac aacacagctt tcagttttta gagcatttcc ccatacaga acattgtctt acttgatctt ccgatgacc tcaacaacag gaaaggcagg tcttttcatt tccatttata agacgcacag accagatt atctagccac aggaagcagg actccagatt tcaaglcacg catctcaacg tgacaacctt ggtaaactctg catgaacgga ctggatagta aagtgggaatt attactgaga actgcaatga ataaaatctt ttgcattttt tgcctacgtt tcacagaggg tgatatattt ctgagggaat taaatttata ccacggccac aatactgaaa cgttctgacc acaaaagtca tgtcctctgca tctacacagc agataactgc agaaacggct tctttcttc cttgtaaaa tgctgaaaa cagctcccc ttgtgttccg tcgaggcata tcttcaccaa cgttaaaaa gagctgaggg agatcgcat tctgcctccc tccgcctctg cagaggggct ccagctgttc agagtaacgg attactagg aggtgttgt ttccctcct tcccagggtc tcttctctct ctttgagatt gcctcttct tactcctgag cacaggagcc ggcgggtt tctgtccctt gccctggaca gcactgcctg gatggcctg tccggcagc tgcctgttgc ccacccaaa agatgtcccc acgactcagt agtaaccaga cgttccccac ggaccactgc ggccaaattt ccgcatccc cgctgtggga atcaggctt tcccgcagaa aaccccagga atctagagaa aactccttaa gtccctagtc tccatagaga aaaccaggag acactcccc caaacccgc tgtgaataca ggcacagcag ccactggggc ctgaaagtga tgaagtgcgt cttcccgctg caacatagg gtaataaata gcattgcatca aagacgttac taggaagaga tagctcttta	Homo sapiens

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335	5118	Vasopressin V1B Receptor	NM_000707	ggttgggga ttc atattgaac aaagagagct catcatcagt cttaatatct agagaaaact tcagagaaat tatgttttca tccattaaaa ttaatttgtg catcagaaaa tgcagcctta aacagtgtcc aggagatggg atggtacctc ctaggagtac aagtgcctgg ggtgtaata gctcctgtctc attgtggcca gtttagagtt ctattagaag ctatcaatca ccttgcatct caaaatggta actttacaac tggcagtggc ctcttttggg tctctacatc attattggtc aagaaaagca tgaaaactga gatgctgaag gtgagaggaa agtgcagatt gctataagga gccaataaata tcttttttcc cccactgcaa ggttgtttta agtgcagatt tgtataagga aagccaaatt ttattaaaag agtagaaaaa gattgcttaa ggtactctgg actttctctt ggacattgta aacgtatttt gatcagtatt acaagggtat cctgtgctat gctggacatt acaagatca ttatcttcat gtttgggga ttc	Homo sapiens



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Homo  
sapiensHomo  
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338	5119	Vasopressin V2 Receptor	NP_000045.1	MLMASTTSAV ALARRGRRGH VGMVASSYMI RNVEGGSGVT SERPGRRRG PLEGAPFVLL ASSSLAKDTS	PGHPSLPSLP WAPIHVFIGH LAMTLDRHRA DCWACFAEPW RRTGSPGEGA MLLASINSCT NPWIIYASFSS SVSSELRSL	TRDPLLARAE FQVLPQLAWK GSGAHWNRPV LMVFVPTLG IAACQVLIFR VLCWAPFFLV CARGRTPPS	LALLSIVEFA ATDRFERGPD LVAMAFSILL IMVFVPTLG IAACQVLIFR VLCWAPFFLV CARGRTPPS	VALSNGLVLA LCRAVKYLQM SLPQLFIFAQ EIHASLVPGP QLWAAMDPEA LGPQDESCTT	P	ggaaggggcy cctttgtgc tactcatgtt gctggccagc ctcaacagct gcaccaaccc ctggatctat gcattcttca gcagcagcgt gtccctcagag ctgcgaagct tgctctgctg tgcccgggga cgcacccccc ccagcctggg tccccaaagt gagtccctga ccaccgccag ctctccctcg gccaaaggaca cttcatcgtg aggagctgtt ggggtgcttg cctctagagg ctttgagaag ctacagctgc tctctgggc tggctctggg agccactggg agggggaccc gtggagaatt ggccagagcc tgtggccccc agctgtggg actgtgtgg cctggacaag ccacagcccc tgccctgggc tccacatccc cagctgtatg aggagagctt caggccccag gactgtgggg gcccctcagg tcagctcact gactgggtg taggaggggc tgcagcagag gcctgaggag tggcaggaaa gagggagcag gtgccccag gtgccccagg gcctgaaaag gaaggaccag gctggggcca ggggacctc ctgtctcgc ctttctaatac cctccctcct cattctctcc ctaataaaaa ttggagctct tttccacatg gcaaggggtc tccttgga
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				VDRYLITICLP DVGRMTTNT YIGLILGAWI NGFLWALMPI IGWASYAPDP TGATCTINWR	
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				MSVIMICMFL VAWSPYSIVC LWASFGDPKK IPPPMALIIAP LFAKSTFTN PCIYVVANKK	
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341	5519	Brain-Specific Angiogenesis Inhibitor 1	NM_001702	ggactttaga agccgtgtgt gccctctctg tcacctgaag cggggccctc tcccatccca A	Homo sapiens
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342	5519	Brain-Specific Angiogenesis Inhibitor 1	NP_001693.1	<p> ccccctccc agcagccctt gccccaccg cccaatctgg agcgggcacc cccagcctg  ggggtatccc gggagcctgc cgcccatccg ggaccagca cggggcccag caccaagaac  gagaatgtcg ccaccttgc tgtgagctcc ctggagcggc ggaagtcgg gtatgcagaa  ctggactttg agaagatcat gcacacccgg aagcggcacc aagacatgtt ccaggacctg  aacgggaagc tgcagcagc agcgagaag gacaagagg tctggggcc ggacagcaag  ccggaaaagc agcagacgc caacaagag cctcggaag gctcgccgaa agccacggg  acgcccacgt gggagaagaa ggagctggag ccgctgcagc cgtcgccgt agagcttcgc  agcgtggagt gggagaggtc gggcgccacg atcccgctgg tgggccagg catcatcgac  ctccagaccg aggtctgagc ggtgggcggg cggccacgca ctgggccacg gaggagggat  gctgctccgc ccgctcctgc cgcagacggg cacagacacg ctgcgggca cggggccagg  cccgcacccc ggcctcagg cgtcagacg cggccaggc acaggggccc cagtgtctggg  accagagcca gatgcaggac aggagcggc ccgcccagg ggcacaggc accagaggcc  gaaggtgcct cagactccgc cctcctcgg ccgagggcca cggggcagat gggcggaagg  ctgtggaccg tggacaggcc cagcgcggcc agcgtcccag ggtaccgcc tgagctcctg  ctgcggagga gctgcctgct tggcccgccc ggcctggcac cgttttttaa acacccccat  ccctcgggaa gcagccagct cccacacct tccaggggccc taggcccctc ctagacccag  gtggagggca cagccctcgc accctcatgg cccccagggg caggactgag tccccctcag  gaagaagcag gggggaatct atttttctc tcttttctt tcttcaata aaaagaatta  aaaaacccaa aaaa </p>	Homo sapiens
				<p> MRGQAAPGP VWILAPLLL LLLGLRRARA AAGADAGPGP EPCATLVQK FFGYFSAAAV P  FPANASRCSW TLRNPDPRTY TLYMKVAKAP VPCSGPGRVR TYQFDSFLES TRYLGVESF  DEVLRLCDPS APLAFLQASK QFLQMRROQP PQHDGLRPRA GPPGPTDDFS VEYLVVGNRN  PSRAACQMLC RWLDACLAGS RSSHPCGIMQ TPCACLGGEA GGPAAGPLAP RGDVCLRDV  AGGPENCITS LTQDRGGHGA TGGWKLSLW GECTRDGCGG LQTRTRTCLP APGVEGGCE  GVLEGRQCN REACGPAGRT SRSQSLRST DARRREELGD ELQFGFPAP QTGDPAAEEW  SPWSVCSSTC GEGWQTRTF CVSSSYSTQC SGPLREQRLC NNSAVCPVHG AWDESPWSL  CSSTCGRGFR DRTRTCRPPQ FGGNPEGPE KQTKFCNIAL CPGRAVDGNW NEWSWSWACS  ASCSQGRQQR TRECNGPSYG GAECQGHWE TRDCFLOQCP VDGKQAWAS WGSCTVTCGA  GSQRRERVCS GPFFGGAACQ GPQDEYRQC TQRCPEPHEI CDEDNFGAVI WKETPAGEVA  AVRCPRNATG LILRRCELDE EGIAYWEPPT YIRCVSIDYR NIQMTREHL AKAQRLPGE  GVSEVIQTIV EISQDGTYS GDLLSTIDVL RNMTFIFRRA YYSPTPGDVQ NFVQILSNLL  AEENRDKEE AOLAGPNAKE LFLVEFVD VIGFRMKDLR DAYQVTDNLV LSIHKLPSAG  ATDISFPMKG WRATGDWAKV PEDRVTVS KS VFSTGLTEAD EASVFVGTV LYRNLGSFLA  LQNTTVLNS KVISVTVKPP PRSLRTPLEI EFAHMYNGTT NQTCILWDET DVPSSAPPQ  LGPSWRGCR TVPLDALRTR CLCDRLSTFA ILAQLSADAN MEKATLPSVT LIVGCGVSSL  TLMLVIYV SWRYIRSER SVILINFCLS IISNALILI GQTQTRNKVM CTLVAAPLHF  FFLSSFCWVL TEAWQSYMAV TGHRLNRILR KRFCLGWGL PALVVAISVG FTKAKGYSTM  NYCWLSEGG LLYAFVGPAA AVLVNVMVIG ILVFNKLVSK DGITDKLKE RAGASLWSSC  VVLPLALTW MSAVLAVTDR RSLFQILFA VFDLSGTFVI VMVHCILRE VQDAVKCRV  DRQEEGNGDS GGSFQNGHAQ LMTDFEKDVD LACRSVLNKD IAACRTATIT GTLKRPISLPE  EEKLKLAAK GPPTNFNSLP ANVSKLHLHG SPRYPGGPLP DFPNHSITLK RDKAPKSSFV </p>	

343	5520	Brain-Specific Angiogenesis Inhibitor 2	NM_001703	<p>GDGDIFFKKLD SELSRAQEKALDTSYVILPTATATLRPKPKKEPKYSIHID QMPQTRLIHL  STAPEASLPA RSPPSRQPPSGGPPEAPPAQ PPPPPPPPP PPQPLPPPP NLEPAPPSLG  DPGEPAHPG PSTGPSTKNE NVATLSVSSL ERRKSRYAEL DFEKIMHTRK RHQDMFQDLN  RKLQHAAEKD KEVLGPDPSKP EKQQTPNKRP WESLRKAHGT PTWVKKELEP LQSPLELRS  VEWERSGATI PLVGQDIIDL QTEV</p> <p>gcgcgcgggg agagcgggag cctcgccct ccgcgcggt gcagctacct accctgcgc A  cgccagggtc ccgacttag ggtggcaaa cttgcgccc gtggccgccc ccgcccagcg  cgcccccgcc tccgtgtgt gcgcgccc aggaatcca cagcagtgat acatgtgacg  tccacactga cagtgccctc ctgtgggcat ggctcaggtt gtgcgagtt cctggcacac  tggtgtaac tccgcccctt tctctccctc tcagtaaac agattacgc ggtgacatgc  ctcacagctg atcacgacac acggggatgg agagcaagag ttatggagaa tacaggttgg  atgggcaagg gacataggat gacccagcc tgtccctct tactgtctgt gattctgtcc  ctgcgcctgg ccaccgctt cgaccccgcc ccagtgctt gctctgccct ggcccggtt  gtgctctacg gggccttctc gctgcaggac ctcttctta ccatcgctc gggctgctcc  tggaacctgg agaacctga cccaccaaag tactccctt acctgctt caaccgcccag  gagcagggtgt gcgcacctt tggcccccg ccgtgcgcc tggaccacta cctggtcaac  tttacctgcc tgcggcctag cccgaggag gcggtggccc agcgaggatc agagtgggg  cgccagaag aggaggggc agagcgcca ggggggttg agctgtgcag cggctcaggg  ccctttacct tctgcactt cgacaagac ttcgtgcagc tgtgcctgtc ggctgagccc  tccgaggccc cgccgtgtt ggcgcctgt ggcctagctt tccgtttgt cgaggtctt  ctcatcaaca acaacaact tagccaatt acctgtgtg tgcctgccc ctgagtgag  gagtggtgcc gcgtgcggg cagggcctgc ggtttgttc agccaggctg cagctgccc  ggagaggcgg gggcggctc caccaccacc acatctccag gccctcctgc tgcccacac  ctgtccaatg cctgtgtgc cgggggccc acatctccag gccctcctgc tttgcaactg  gggagcagca atgatctgt cacaaccgag atgagatag gtgagagacc ggaagagga  ccgaaagtga aaaccagt ggcgaggtct gcagatgagc ctgggctata catggcgag  acaggcgacc cggcggtga ggaagtgtcc cgtggagcg tgtttccct gacgtgtggg  cagggtctgc agtgcgag ccgtcctgt gtgtccctc cctatgggac cctgtgcagc  gggcccctgc gggagaccg gccctgcaac aattcagcca cctgcccagt gcacggcgtg  tggaaggagt ggggtctcg gacctgtgc tcccgagct gcggcgggg gtcccggagc  cggtgaggga cctgctgccc ccccgagcac ggcggcaagg cctgagaggg tccgtgagctg  cagactaagc tctgagtat ggtgcctgc ccggtggaag gccagtgggtt agaattgggtt  ccctggggcc catgtccac gtctgtgccc aatgggaccc aacagcgag ccggaagtgc  agcgtggcgg gccagcctg ggcacatgc acgggtgccc tcactgacac ccgggagtg  agcaacctcg agtggccggc cactgatgc aagtggggc catggaatgc gtggagcctg  tgctctaaga cgtgtgacac aggtggcag cgccgtctc gcatgtgcca ggcacgggc  acgcagggtt accctgca gggcaccgga gaggaggtga agccttgtag tgagaagagg  tgtccagcct tccatgagat gtgcaggat gactacgtga tgcctgagc gtggaagaa  gcagctgctg gcgagatcat ctacaacaag tgccccccg atgcctcagg gtctgccag  cgccgctgtc tccctcagtc ccaaggcgtg gcgtactggg ggctgcccag cttgtctcg  tgcatctccc atgagtaccg ctactgtat ctgtcacta gggagcacct ggccaagggg</p>	Homo sapiens
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344	5520	Brain-Specific Angiogenesis Inhibitor 2	NP_001694.1	<p>ccgcccacac ccagcgcccc ccaagtgcgc agccagcgcc gagccagggg agcgagcgcc gaccatgcct</p> <p>cgccacgtgc ccggctctac catgaagatg ggctccctgg agcgaaagaa attacggtat</p> <p>tcagacctgg actttgaggt gatgcacacc cgaaacggc attcagaact ctaccacgag</p> <p>ctcaaccaga agttccacac ttccgaccgc taccgagcc agctcaccgc caagagggag</p> <p>aagcggtgga gtgtgtcttc ggtggtggcg gccagagcga gcgtgtgcac cgataagccc</p> <p>agccctgggg agcgccccag ctgtgtccaa catcgcgcc atcagagctg gagcaccttc</p> <p>aaatctatga cactgggctc gctgcccccc aagccccgag aacgggtgac tctgcaccgg</p> <p>gcagcagcct gggagcccc agaacaccgc gatggtgact tccagacaga ggtgtgagt</p> <p>ccacgctgga ctgcccactg catataaata tatatatct tctatttca cactccactt</p> <p>tggaaactac caggagccag cgcctctcc cctctccga ggcctgggca gggagggcgc</p> <p>gtggactcag ccaggtggg gggagccgac atggcttggc ctggggtccc agggcccttc</p> <p>cttgtttctc agaggcccc cagccactgg aacccatct tcagcccgag ctgtccgctc</p> <p>ctgtccccgg ctggggaggg gggaggggaa cttgttggg aataaacttc actctgtgg</p>	Homo sapiens
				<p>MTFACPLLLS VILSLRLATA FDPAPSACSA LASGVLYGAF SLQDLFFIA SGCSWTLENP P</p> <p>DFTKYSLYLR FNRQEQVCAH FAPRLPLDH YLVNFTCLRP SPEEAVAQAE SEVGRPEEEE</p> <p>AEAAAGLELC SGSGPFTFLH FDKNFVQLCL SAEPSEAPRL LAPAALAFRE VEVILLINNN</p> <p>SSQFTCGVLC RWSEECGRAA GRACGEAQP G CSCPGEAGAG STTTTSPGP AAHTLSNALV</p> <p>PGGPAPPAEA DLHSGSSNDL FTTEMRYGEE PEEEPKVKTQ WPSADEPGL YNAQTGDPA</p> <p>EWSPWSVCS LTCGQLQVR TRSCVSSPYG TLCSGPLRET RPCNNSATCP VHGWEEWGS</p> <p>WLSCSRSCGR GSRSRMTCV PPQHGKACE GPELQTKLS MAACPVEGQW LEWGPWGPCS</p> <p>TSCANGTQQR SRKCSVAGPA WATCTGALTD TRECSNLECP ATDSKWGPWN AWSICSKTCD</p> <p>TGWQRFRMC QATGTQGYPC EGTGEEVKPC SEKRCPAFHE MCRDEYVMLM TWKKAAGEI</p> <p>IYNKCPPNAS GSASRRCLS AQGVAYWGLP SFARCISHEY RYLYLSREH LAKQRMLAG</p> <p>EGMSQVVRSL QELLARITYY SGDLFSDVI LRVNVTDFKR ATYVPSADDV QRFQVVSFM</p> <p>VDAENKEKWD DAQOVSPGV HLLRVDEFI HVGDAKAF QSSLIVTDNL VISIQREPVS</p> <p>AVSSDITFPM RRRGMKDWV RHSEDRLELP KEVLSLSPG KPATSGAAGS PGRGRPGTV</p> <p>PPGPGRSHQR LLPADPDESS YFVIGAVLYR TLGLILPPPR PPLAVTSRVM TVTVRPPTQP</p> <p>PAEPLITVEL SYIINGTDP HCASWDYSRA DASSGDWDE NCQTLETQAA HTRCQCQHL</p> <p>TFAVLAQPPK DLTLELAGSP SVPLVIGCAV SCMALTLIA IYAAFWRFK SERSIILNF</p> <p>CLSILASNIL ILVGQSRVLS KGVCTMTAAF LHFFFLSSFC WVLTEAWQSY LAVIGMRTR</p> <p>LVRKRFLCLG WGLPALVAV SVGFTRTKGY GTSSYCWLSL EGGLEYAFVG PAAVIVLVNM</p> <p>LIGIIVFNKL MARDGISDKS KKQAGSERC PWASILLPCS ACGAVPSPL SSASARNAMA</p> <p>SLWSSCVVLP LLALTWMSAV LAMTDRRSVL FQALFAVNS AQGFVITAVH CFLREVQDV</p> <p>VKQMGVCRA DESEDSPDSC KNGQLQILD FEKDVDLACQ TVLFKEVNTC NPSTITGTL</p> <p>RLSLDEEP KSLVGPESG LSFSPGNI LVPMAASPL GEPPPPQAN PVVMCGEGGL</p> <p>RQLDLTWLRP TEPGSEGDY VLPRTLSLQ PGSGGGGGG APRARPEGP RRAAKTVAHT</p> <p>EGYPSFLSVD HSGGLGPAV GSLQNPYGMT FQPPPTPSA RQVPEPERS RTMPRTVPGS</p> <p>TMKMSGLERK KLRYSDDLDFE VMHTRKRHSE LYHELNQKFE TFDYRSQST AKREKRSVS</p> <p>SGGAAERSVC TDKPSPGERP SLSQHRRHQ S WSTFKSMTLG SLPPKPRERL TLHRAAAWEP</p> <p>TEPPDGDFTQ EV</p>	





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aagcaacgat tcatgttga accgttcat atgggttagt ttcaaaaaa cttcaccatg

346	5521	Brain-Specific Angiogenesis Inhibitor 3	NP_001695.1	<p>aagcacaatg tataatatta tgcagttttt aaagttata acagtctgtt tggccattac  tacacttttt actttataat ataaaagcaa agttttgtc attaaatgaa tgtttgttga  gtatcatctt ctattgcttt aaatgaataa ctcataatct ctcataatct tatgaataat  atatttcaca tctttattat tgcagttttc tctagaaaagc tctgagaagc tttctctgct  gcagctgtgt ataaaatatt taaaatgttg tatggtgtaa ataaaacttt gtctacat  MKAVERNILLY IFSTYLLVME GFNAAQDFWC STLVKGVYIG SYSVSEMFPK NFNCTWTLE P</p>	Homo sapiens
347	6031	SIV/HIV Receptor BONZO	NM_006564	<p>NPDPKYSIY LKFSKDLSC SNFSLAYQF DHFSHEKID LLRNHNSIMQ LCNSKNAFVF  LQYDKNFIQI RRVFTNFPQ LQKKGEEDQK SFPEFLVLNK VSPSQFGCHV LCTWLESCLK  SENGRTESCG IMYTKCTCPQ HLGEWGIDDO TIKSQRPVS HEKRVPEQA DAAKFMAQTG ESGVEEWSQW  NLTREAKRPP KEFGMGMDH QVTRTRCVS PYGTHCSGPL RESRVCNNTA LCPVHGVWEE WSPWSLCSFT  STCSVTCGQG SQTTPQYGRG PCEGPETHHK PCNIALCPVD GQWQEWSSWS QCSVTCSTNGT  CGRGQRTTR AHGSECRGP WAESRECYNP ECTANGQWNQ WGHWSGCSKS CDGWERRIR  QQRSRQCTAA QCEGTGEEVR RCSEQRCPAP YEICPEDYLM SMVWKRTAG DLAENQCPLN  TCQGAUITGQ QCEGTGEEVR RCSEQRCPAP YEICPEDYLM SMVWKRTAG DLAENQCPLN  ATGTSRRCS LSLHGVAWE QPSEFARCIS EYRHLQHSIK EHLAKQRM L AGDMSQVTK  TLDDLTRKN FYAGDLLMSV EILRNVTDF KRASYIPASD GVQNFQIVS NLLDEENKEK  WEDAQIYPG SIELMQVIED FIHIVGMGM DFQNSYLMTG NVVASIQKLP AASVLTDFIN  PMKGRKMVD WARNSEDRV IPKSIFTPVS SKELDESSVF VLGAVALYKLN DLILPLRNY  TVNSKIIV TIRPEKTTD SFLEIELAHL ANGTLPYCV LWDDSKTNS LGTWSTQGCK  TVLTDASHK CLCDRLSTFA ILAQOPREI MESSGTPSVT LIVSGSLSL ALITLAVVYA  ALWRYIRSER SIILINFCLS IISNNILV GQTQTHKSI CTTTAFLEH FFLASFQWVL  TEAWQSYMAV TGKIRTRLR KRFLCLGWGL PALVAVATSVG FTRTKGYGTD HYCWLSLEGG  LLYAFVGPAA AVLVMNVIG ILVENKLVS DGILDKLKH RAGOMSEPHS GLTLKCAKCG  VVSTTALSAT TASNAMSALW SSCVVLPLA LTWMSAVLAM TDKRSILFQI LEAVFDSLQG  FVIVMVHCIL RREVQDAFRC RLNCQDPIN ADSSSFPNG HAQIMTDFEK DVDIACRSVL  HKDIGPCRAA TITGTLSTRIS LNDDEEEKGT NPEGLSYSTL PGNVISKVI QOPTGLHMPM  SMNELSNPCL KENSELRRT VYLCTDDNLR GADMDIVHPQ ERMESDYIV MPRSSVNNQP  SMKEESKMN I GMETLPHERL LHYKVNPEFN MNPPVMDQFN MNLEQLAPQ EHMQLPFEP  RTAVKNFMAS ELDDNAGLSR SETGSTSMS SLERRKSRY S DLDFEKVMHT RKRHMLFQE  LNQKFQTLDR FRDIPNTSSM ENPAPNKNPW DTFKNPSEYP HYTTINVLDT EAKDALELRP  AEWEKCLNLP LDVQEGDFQT EV</p>	Homo sapiens
347	6031	SIV/HIV Receptor BONZO	NM_006564	<p>gcagaccttg cttcatgagc aagctcatct ctggaaacaaa ctggcaaaagc atctctgctg A  gtgttcatac gaacagacac catggcagag catgattacc atgaagacta tgggttcagc  agtttcaatg acagagacca ggagagagcat caagacttcc tgcaggttcag caaggtcttt  ctgcccctgca tgtacctggt ggtggttctg tgtggtctg tggggaactc tctggtgctg  gtcatacca tcttctacca taagtgtgag agcctgacgg atgtgttctt ggtgaacctc  ccccctggctg acctggtgtt tgtctgcat ctgcccttct ggccctatgc aggcattccat  gaatgggtgt ttggccaggt catgtgcaag agcctactgg gcatctacac tattaacttc  tacacgtcca tgcctcatcct cacctgcatc actgtggatc gtttcattgt agtgggtaag  gccaccaagg cctacaacca gcaagccaag aggatgacct ggggcaaggt caccagcttg  ctcatctggg tgatatacct gctggtttcc ttgccccaaa ttatctatgg caatgtcttt</p>	Homo sapiens

348	6031	SIV/HIV Receptor BONZO	NP_006555.1	<p>aatctcgaca agctcatatg tgggtaccat gacgaggcaa tttccactgt ggtttctg</p> <p>accagatga cactggggtt cttcttgcca ctgctacca tgattgtctg ctattcagtc</p> <p>ataatcaaaa cactgcttca tgctggaggc ttccagaagc acagatctct aaagatcatc</p> <p>ttcctgggtga tggctgtgtt cctgctgacc cagatgccct toaacctcat gaagttcatc</p> <p>cgcagcacac actgggaata ctatgccatg accagcttc ctatgccat catggttgaca</p> <p>gaggccatcg cataccttg agaaccttctg gaaacttctg aaggacattg ttgcctctgg</p> <p>aagtttcgaa agaaccttctg gaaacttctg aaggacattg ttgcctctgg</p> <p>gtctcacatc aatggaaatc ttctgaggac aattccaaga cttttctgc ctcccacaat</p> <p>gtggaggcca ccagcatgtt ccagttatag gccttgccag ggtttcgaga agctgctctg</p> <p>gaatttgcaa gtcattgctg tgccctcttg atgtggtgag gcaggctttg tttatagctt</p> <p>gcgcattctc atggagaagt tatcagacac tctggctggt ttggaatgct tcttctcagg</p> <p>catgaacatg tactgttctc ttcttgaaca ctcatgctga aagcccaagt aggggtcta</p> <p>aaatttttaa ggactttctc tcttccatct ccaagaatgc tgaaccaag ggggatgaca</p> <p>tgtgactcct atgatctcag gttctccttg atgggactg gggctgaagg ttgaagaggt</p> <p>gagcacggcc aacaaagctg ttgatggtag gtggcacact ggggtgccaa gctcagaagg</p> <p>ctcttctgac tactgggcaa agagtgtaga tcagagcagc agtgaacaca agtctggca</p> <p>ccaccaggca cctcacagaa atgagatcag gctctgctc acctggggc ttgacttttg</p> <p>tataggtaga tgttcagatt gctttgatta atccagaata actagcacca gggactatga</p> <p>atgggcaaaa ctgaattata agaggctgat aattccagtg gtccatggaa tgcttgaaaa</p> <p>atgtgcaaaa cagcgtttaa gactgtaatg aatcraagca gcatttctga agtggactct</p> <p>ttggtggctt tgcattttaa aaatgaaatt ttccaatgtc tgccacacaa acgtatgtaa</p> <p>atgtatatc ccacacatc acacacatat gtcatatatt actagcatat gagtctcata</p> <p>gctaagaaat aaactgtta agtctccaa act</p> <p>MAEHDYHEDY GFSEFNDSSQ EEHQDFLQFS KVFLPCMVLV VFVCGLVGNS LVLVVISFYH P</p> <p>KLQSLTDVFL VNLPLADLVF VCTLPFWAYA GIHEWVFGQV MCKSLLGITV INFYTSMLIL sapiens</p> <p>TCITVDRFIV VKATKAYNQ QAKRMTWGV FLPLLTMIVC YSVIIKTLH AGGFQKHRSI KIIFLVMVAF</p> <p>GYHDEAISTV VIATQMTLGF YAMTSFHYTI MVTEAIAYLR ACLNPVLYAF VSLKFRKNFW</p> <p>LLTQMPFNLM KFIRSTHWEY YLGVSHQWKS SEDNSKTFSA SHNVEATSMF QL</p> <p>KLVKDIGCLP YLGVSHQWKS</p>	Homo sapiens
349	6204	Lysophosphat idic Acid Receptor Edg4	NM_004720	<p>gcccagatgg tcatcatggg ccagtgtctac tacaacgaga ccctgggctt cttctataac A</p> <p>aacagtggca aagagctcag ctcccactgg cggcccaagg atgtggtcgt ggtggcactg</p> <p>gggtgacgg tcagcgtgct ggtgctgctg accaatctgc tggtcatagc agccatcgcc</p> <p>tccaaaccgc gcttccacca gcccatctac tacctgctcg gcaatctggc cgcgggctgac</p> <p>ctcttcgagg gcgtggccta cctcttctc atgttcaca ctggtccccc cacaagccccga</p> <p>ctttcactg agggctggtt cctgcgaggc ggcttgctgg acacaagcct cactgctgctg</p> <p>gtggccacac tgctggccat cgcctggagg cggcacccga gtgtgatggc cgtgcagctg</p> <p>cacagccgc tgccccgtgg ccgcgtggtc atgtcattg tgggctgtg ggtggctgccc</p> <p>ctgggcccctg ggctgctgccc tgcccactcc tggcactgccc tctgtgccc ggaccgctgc</p> <p>tcacgcgatgg caccctgct cagccgctcc tatttggccg tctgggctct gtgagcctg</p> <p>cttgtcttc tgctcatggt ggctgtgtac acccgcatth tcttctacgt gcggcgccga</p> <p>gtgcagcgca tggcagagca tgtcagctgc caccctgct accgagagac cagctcagc</p>	Homo sapiens

350	6204	Lysophosphat idic Acid Receptor Edg4	NP_004711.2	350	ctgttcaaga ctgttgtcat cactctgggg gcgttcgtgg tctgctggac accaggccacg gtgtactgc tctgtactgc tttagctgt gagtctga atgtcctggc tgtagaaaag tacttctac tgttgccga ggcgaactca ctgtgtgta ctcttgccga gatgtgaga tgcgccgac ctccgccg ctctctgct gcgctgct ccgccagctc accgcgagt ctgtccacta tacatctct gcccgaggag gtgccagcac tgcacatcatg cttcccgaga acggccacc actgatggac tccaccttt agctacctg aacttcagcg gtacgcgga agcaaaaat ccacagcccc tgatgactg tgggtgctcc tggctcaacc caaccaacag gactgactg	6204	TVSVLVLLTN LLVIAAIASN P LEGWFLRQGL LDTSLTASVA LGLLPAHSWH CLCALDRCSR RYRETTLSIV NAAVYSCRDA	Homo sapiens
351	6213	C-C Chemokine Receptor 5	NM_000579	351	ctgttcaaga ctgttgtcat cactctgggg gcgttcgtgg tctgctggac accaggccacg gtgtactgc tctgtactgc tttagctgt gagtctga atgtcctggc tgtagaaaag tacttctac tgttgccga ggcgaactca ctgtgtgta ctcttgccga gatgtgaga tgcgccgac ctccgccg ctctctgct gcgctgct ccgccagctc accgcgagt ctgtccacta tacatctct gcccgaggag gtgccagcac tgcacatcatg cttcccgaga acggccacc actgatggac tccaccttt agctacctg aacttcagcg gtacgcgga agcaaaaat ccacagcccc tgatgactg tgggtgctcc tggctcaacc caaccaacag gactgactg	6213	TVSVLVLLTN LLVIAAIASN P LEGWFLRQGL LDTSLTASVA LGLLPAHSWH CLCALDRCSR RYRETTLSIV NAAVYSCRDA	Homo sapiens

352	6213	C-C Chemokine Receptor 5	NP_000570.1	<p> aaaaatatgtt gatgaaaaaat agcaacccctt ttatctcccc ttacatgca tcaagttatt  gacaaactct ccttcactc cgaagtctcc ttatgtatat ttaaaagaaa gcctcagaga  attgctgatt cttagagtta gtgatctgaa cagaaatacc aaaattattt cagaaatgta  caacttttta cctagtacaa ggcaacatat aggttgtaaa tgtgttaaa acaggtcttt  gtcttgctat ggggagaaaa gacatgaata gtattactga agaaatgaca cttttcatgt  gtgatttccc ctccaagta tggtaataa gtttcactga cttagaacca ggcgagagac  ttgtggcctg ggagagctg ggaagcttct taaatgagaa ggaatttgag ttggtatcatc  tattgctggc aaagacagaa gcctcactgc aagcactgca tgggcaagct tggctgtaga  aggagacaga gctggttggg aagacatggg gaggaaggac aaggtatgat catgaagaac  cttgacggca ttgctccgct taagtcatga gctgagcagg gagatcctgg ttggtgttgc  agaagggtta ctctgtggc aaaggagggt caggaaggat gagcatttag ggcaaggaga  ccaccaacag cctcaggctc aggttgagga tggcctctgc taagctcaag gcgtgaggat  gggaaggagg gaggtattcg taaggatggg aaggaggagg gtattcgtgc agcatatgag  gatgcagagt cagcagaact ggggtggtt tggtttgaa gtgagggtca gagaggagtc  agagagaatc cctagctctc aagcagattg gaaaaacct tgaagaagaca tcaagcacag  aaggaggagg aggaggttta ggtcagaag aagatggatt ggtgtaaaag gatgggtctg  gttgacagag cttgaacaca gtctcaccga gactccaggc tgtctttcac tgaatgcttc  tgacttcata gatttcttc ccatcccgcc tgaataactg aggggtctcc aggaggagac  tagatttatg aatacacgag gtatgaggtc taggaacata cttcagctca cacatgagat  ctaggtgagg attgattacc tagtagtcat ttcattgggtt gttgggagga ttctatgagg  caaccacagg cagcatttag cacatactac acattcaata agcatcaaac tcttagttac  tcattcaggg atagcactga gcaaacatt gagcaagggt gtcccatata ggtgagggaa  gcctgaaaaa ctaagatgct gcctgcccag tgcacacaa gttaggtatc attttctgca  tttaaccgct aataggcaaa gggggggaag gacatatcca tttggaata agctgccttg  agccttaaaa cccacaaaa tacaatttac cagcctccgt atttcagact gaatgggggt  ggggggggcg ccttaggtac ttattccaga tgccttctcc agacaaacca gaagcaacag  aaaaaatcgt ctctccctcc ctttgaatg aatatacccc ttagtgtttg ggtatatcca  tttcaaaagg agagagagag gtttttttct gtctttctc atatgattgt gcacatactt  gagactgttt tgaatttggg ggatggctaa aaccatcata gtacaggtaa ggtgagggaa  tagtaagtgg tgagaactac tcagggaatg aaggtgtcag aataataaga ggtgctactg  actttctcag cctctgaata tgaacgtga gcatgtggc tgtcagcagg aagcaacgaa  gggaaatgct tttccttttg ctcttaagtt gtggagagtg caacagtagc ataggaccct  accctctggg ccaagtcaaa gacattctga catcttagta ttgcatatt cttatgtatg  tgaagtttac aaattgcttg aaagaaaaa tgcattctaat aaaaaacacc ttcta  MDYQVSSPIY DINYTSEPC QKINVKQIAA RLPLPLYSLV FIFGFVGNML VTLLINCKR P  LKSMTDIYLL NLASDLFFL LTVPFWAHYA AAQWDFGNMT CQLLTGLYFI GFFSGIFFII sapiens  LLTIDRYLAV VHAFALKAR TVTFGVVTSV ITWVAVFAS LPGIIFRSQ KEGLHYTCSS  HFPYSQYQFW KNFQTLKIVI LGLVPLPLVM VICYSGLIKT LLRCRNEKRR HRAVRLIFTI  MIVYFLFWAP YNIVLLNLT QEFFGLNCS SSNRLDQAMQ VTETLGMTHC CINPIIYAFV  GEKFRNYLLV FFQKHIKRF CKCCSIFQQE APERASSVYT RSTGEQEISV GL </p>	Homo sapiens
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353	6363	Chemokine (C-C motif) Receptor- like 2 (CCRL2)	NM_0039365	<p>tcttgctctg gggaagtggg cacagtttaa aagaaatgtt tatttcagtc ttctgaaata A</p> <p>gggaattact ctggctaaaa tgtagctcca gaaagggaag gtgggctgt atgaatccag</p> <p>gtccagtttg ttgttctctc caggataagg cagctgtcgg aggggaaat catctcccat</p> <p>ttctccacag ggcagctctga agatggccaa ttacacgctg gcaccagagg atgaatatga</p> <p>tgctctcata gaaggtgaac tggagagcga tgaggcagag caatgtgaca agtatgacgc</p> <p>ccaggcactc tcagccagc tgggcccac actctgctct gctgtgttg tgatcggtgt</p> <p>cctggacaat ctctgggttg tgcttatctt tggcagtttc taacttgtgt tcttgctta ccctgccctt</p> <p>aaatatctat cttctaaact tggcagtttc taacttgtgt tcttgctta ccctgccctt</p> <p>ctgggctcat gctggggggg atcccatttg taaaattctc attggactgt acttcgtggg</p> <p>cctgtacagt gagacatttt tcaattgctt tctgactgtg caaagggtacc tagtgttttt</p> <p>gcacaagggc aactttttct cagccaggag gagggtgcc tgtggcatca ttacaagtgt</p> <p>cctggcatgg gtaacagcca ttctggccac ttgtcctgaa tacgtggttt ataaacctca</p> <p>gatggaagac cagaaataca agtgtgcat tagcagaact ccttctcgc cagctgatga</p> <p>gacattctgg aagcattttc tgacttttaa atgaacatt tcggttcttg tcttccccct</p> <p>atttattttt acatttctct atgtgcaat gagaaaaa ctaagggttca gggagcagag</p> <p>gtatagcctt ttcaagcttg ttttgccat aatggtagtc ttccttctga tgtggcgcc</p> <p>ctacaatatt gcatttttcc tgtccacttt caaagaacac ttctccctga gtgactgcaa</p> <p>gagcagctac aatctggaca aaagtgttca catcactaaa ctcatcgcca ccaccactg</p> <p>ctgcatcaac cctctcctgt atgcgtttct tgatgggaca tttagcaaat acctctgccg</p> <p>ctgtttccat ctgcgtagta acaccccat tcaacccagg gggcagctctg cacaaggcac</p> <p>atcgagggaa gaacctgacc attccaccga agtgtaaat agcatccacc aaatgaaga</p> <p>agaataaaca tggattttca tctttctgca ttatttcattg taaattttct acacatttgt</p> <p>atcaaaaatc ggatacagga agaaaagga gagggtagct aacatttgt aagcactgaa</p> <p>tttgtctcag gcaccgtgca aggtctttta caaacgtgag ctctctgcc tctaccact</p> <p>tgctccatagt tggatagga ctagtctcat ttctctgaga agaaaactaa ggcgcggaaa</p> <p>tttgtctaag atcacataac taggaagtgg cagaactgat tctccagccc tggtagcatt</p> <p>tgctcagagc ctacgcttgg tccagaacat caaactccaa accctgggga caaacgacat</p> <p>gaaataaatg tattttaaaa catct</p>	Homo sapiens
354	6363	Chemokine (C-C motif) Receptor- like 2 (CCRL2)	NP_003956.1	<p>LILVKYGLK RVENIYLNL AVSNLCFLIT LPFWAHAGGD PMCKILIGLY FVGLYSETFF</p> <p>NCLLTQRYL VFLHKGFFS ARRRVPCGII TSVLAWVTAI LATLPEYVYVY KPQMEDQKYK</p> <p>CAFSRTPLP ADETFWKHFL TLKMNISVLV LPLFITFLY VQMRKTLRFR EQRYSLFKLV</p> <p>FAIMVVFILM WAPYNIAFFL STFKEHFSLS DCKSSYNLDK SVHITKLIAT THCCINPLLY</p> <p>AFLDGTFSKY LCRCFHLSRN TPLQPRGQSA QGTSREEPDH STEV</p> <p>atgcgagccc cgggcgcgct tctcgccgct cctcgccgct gcccctgcgt cactgcttct gctactgctc A</p> <p>aagtggtctg cctcttctgc cctcgccgct agtcgcgctg agcagaacga aacttgtctg</p> <p>ggggagagct gtgcacctac agtgatccag gcgcgcggca gggacgcctg gggaccggga</p> <p>aattctgcaa gagacgttct gcgagcccca gacccaggag aggagcagg ggcagcgttt</p> <p>cttgccggac cctctggga cctgcccggc gcccccggcc gtgacccggc tgcagggcaga</p> <p>ggggcgaggg cgtcgccagc cggacccccg ggaactccaa ccaggccacc tggccccctgg</p> <p>agtggaagag gtgctcgggg tcaggagcct tctgaaactt tggggagagg gaacccccag</p>	Homo sapiens
355	6446	Pael Receptor (GPR37)	NM_005302		Homo sapiens

356	6446	Pael Receptor (GPR37)	NP_005293.1	gcccctccagc tcttctctca gatctcagag gaggaagaga aggtgtcccag aggcgctggc atttccgggc gtaggccagg gcagagtgtg aagacagtcc ccggagccag cgatcttttt tactggccaa ggagagccgg gaaactccag ggttcccacc acaagcccct gtccaagacg gccaatggac tggcggggca cgaaggggtg acaattgcac tccggggccg ggcgctggcc cagaatggat ccttgggtga aggaatccat gaccccgggg gtcccggccg gggaaacagc acgaaccggc gtgtgagact gaagaacccc ttctaccccg tgacccaggc gtccataggc gcctacggcg tcatgtgtct gtccgtgtgt atcttcggga ccggcatcat tggcaacctg gcggtgatgt gcctcgtgtg ccacaactac tacatcgga gcatctccaa ctcctcttgg gccaacctgg ccttctggga ctttctcacc atcttcttct gcctccgct ggtcatcttct cacgagctga ccaagaagtg gctgctggag gacttctcct gcaagatcgt gccctatata gaggtcgctt ctctgggagt caccaccttc acctatgtg ctctgtgcat agaccgcttc cgtgctgcca ccaacgtaca gatgtactac gaaatgatcg aaactgttc ctcaacaact gccaaacttg ctgttatatg ggtgggagct ctattgttag cacttcaga agtgttctc cgccagctga gcaaggagga ttgggggtt agtgcccgag ctccggcaga aagtgcat attaagatct ctctgattt accagacacc atctatgttc tagccctcac ctacgacagt gcgagactgt ggtggtattt tggctgttac tttgttttc ccacgctttt caccatcacc tgtctcttag tgactcgag gaaaatccgc aaagcagaga aagcctgtac ccgaggggaat aaacggcaga ttcaactaga gactcagatg aactgtacag tagtggcact gaccatttta tatggatttt gcattattcc tgaataatc tgcaacattg ttactgccta catggctaca ggggtttcac agcagacaat ggacctcctt aatatcata gccagttcct tttgttcttt aagtcctgtg tcacccagct cctcctttc tgcctctgca aaccttcag tcgggcttc atggagtgt gctgctgttg ctgtgaggaa tgcattcaga agtcttcaac ggtgaccagt gatgacaatg acaacagta caccacggaa ctggaactct cgcctttcag taccatacgc cgtgaaatgt ccacttttgc ttctgtcga actcattgct ga NSARDVLRAR APREEQAAAF LKVSASSALGV APASRNETCL GESCAPTVIQ RRGDAMGPG P RWKGARGQEP SETLGRGNPT ALQLFLQISE EEEKGPRGAG ISGRSQEQSV KTVPGASDLF YWPRRAGKLQ GSHHKPLSKT ANGLAGHEGW TIALPGRALA QNGSLGEGIH EPGPRRGNS TNRRVRLKNP FYPLTQESYG AYAVMCLSVV IFGTGIIGNL AVMCIVCHNY YMRISNSLL ANLAFWDFLI IFFCLPLVIF HELTKKWLLE DFCKIVPYI EVASLGVTTF TLCAICIDRF RAATNVQMY EMIENTSST AKLAVIWVGA LLLALPEVVL RQLSKEDLGF SGRAPAERICI IKISPDLPT IYVLALTYDS ARLWYFGCY FCLPTLFTIT CSLVTARKIR KAEKACTRGN KRQIQLESQM NCTVVALTIL YGFCIIIPENI CNIVTAYMAT GVSQQTMDLL NIISQFLLEF KSCVTPVLLF CLCKPFSRAF MECCCCCEE CIOKSSTVTS DDNDNEYTTE LELSPFSTIR REMSTFASVG THC	Homo sapiens
357	6536	Putative Neurotransmi tter Receptor (PNR)	NM_003967	atgagagctg tcttcatcca aggtgctgaa gagcacccctg cggcattctg ctaccaggtg A aatgggctct cccccaggac agtacatact ctgggcatcc agttggatcat ctaccagacc tgtgcagcag gcatgctgat tctcgtgcta gggaaatgtat ttgtggcatt tgctgtgtcc tacttcaaa cgcttcacac gccaccaaac ttctgtctgc tctccctggc cctggctgac atgtttctgg gtctgctggt gctgccccctc agcaccattc gctcagtga gactgctgg ttcttcgggg acttctctctg ccgcctgcac acctacatcg acacctctt ctgcctcacc	Homo sapiens



358	6536	Putative Neurotransmi- tter Receptor (PNR)	NP_003958.1	agccagaagg tcttctcacc gcagacacgc actgttgatt tgtaccaaga atga agccagaagg tcttctcacc gcagacacgc actgttgatt tgtaccaaga atga YFKALHTPTN FLLLSLALAD MFLGLLVLP STIRSVESCW FEGDFLCRLH TYLDLFLCLT SIFHLCFISI DRHCAICDPL LYPKFTVRV ALRYILAGWG VPAAYTSLFL YTDVVETRLS QWLEEMPCVG SCQLLNKFW GWLNFFLFFV PCLIMISLYV KIFVATRQA QQITILSKSL AGAAKHERKA AKTLGIIVGI YLLCWLPTI DTWVDSLHFI ITPPLVFDIF IWFAYFNSAC NPPIIYVFSYQ WFRKALKLTL SQKVFSPQTR TVDLVQYE	Homo sapiens
359	6777	G Protein- Coupled Receptor TM7SF1	NM_003272	cggcgcgatg cgcggagacc cccgcggggg cggcgggcgc cgtgagcccc gatgagggccc A gagcgtcccc ggcgcgcgcg cagcgcgcgc ggcgcgcgcg agaccccgcc gtgggaccca gccgcgaacg actcgcgcgc gccacgcgcg acccgcgcgc gtccccccca cgtgaagctt ggcctcaccg tgcgtacac cgtgttctac gcgtgcctct tcgtgttcac ctacgtgcag ctcgtgctgg tgctgcgcta cgcgcacaag cggctcagct accagagcgt ctctctctt ctcgcctct cctgggcctc cctgcggacc gtctctctct cctctactt caaagacttc gtggcgccca attcgcctcag cccctcgcg tctcgtgcg tctactgctt cccgtgtgctg ctgcagtttt tcacctcag cgtgatgaac ttgtacttca cgcagggtgat ttccaagcc aagtcacaaat attctccaga attactcaaa taccgggttg cctctacct ggcctccctc ttcatcagcc ttgttttctt gttggtgaat ttaacctgtg ctgtgctggt aaagacggga aatggggaga ggaaggttat cgtctctgtg cagatggcca ttaatgacac gctcttcgtg ctgtgtgccc tctctctctc catctgtctc tacaataatc ctaagatgtc cttagccaac attacttgg agtccaaagg ctcctccgtg tgcgaagtga ctgcccacgg tgcaccgtg atactgcttt acacctctcg ggcctgctac acctgttca tctgtcatt ttctcagaac aagagcgtcc attcctttga ttatgactgg tacaatgtat cagaccaggc agatttgaag aatcagctgg gagatgctgg atactgatta ttggagtggt tgttatttgt ttgggaactc ttacctacca ccttagtctg ttatttcttc caggttagaa atctacaaa ggaccttacc aacctggaa tgggtccccag ccatggattc agtccagat cttatttctt tgacaacct cgaagatatg acagtatga tgacctgccc tggaaacatt cccctcaggg acttcaggga ggttttgcct cagattacta tgatttggga caacaaacta acagcttctt ggcacaggca ggaactttgc aagactcaac ttgtgatcct gacaaaccaa gccttgggtta gcatcagtta acagttttat ggacgatccc tcagatgaaa agcttcagaa aagcatagt acagctgaat tttagggga ctttctcta agaaatagaa ctgtattttt attgttaca ggttccaat ggcccatag gaataagcaa taatgtagac tgataaacc ttattttagt actaaagagg	Homo sapiens

360	6777	G Protein- Coupled Receptor TM7SF1	NP_003263.1	gagccttgct atttcagtggt gtataattta aactttttta agaaaatctg tacttttata aagatgtatt ttgtataact taaataataa tgctaaagta tactagggtt ttttttctt gagaatgta ctgcaatcat gttgtagttt gcacagagctt ttatgcataa ttacttttaa aaatatagaa tatatggtct aatagttttt tcaagctttt ggactaaagt attccacaaa tcttacctct ttaggtcact gatggtcact ccgatttctga gtgccacatt gtagactcc taaaatacag ttgacaaact agccaaattgc aactccagtg ttgataatta aatgaaatg gtaaacgagc agactgtaag gtctttagag atttttttt aaggttcagg ccgtagggtc ctcaaggaat ctcttaagt ttgcccaag actggtact cctttcagta gggcgcta gtataacat taatgataag ttgataacat taaaaatga gctgacttat cctattaaac ctcctctgct atgttcac	Homo sapiens
361	6853	Purinergic Receptor P2Y11	NM_002566	atggatcgag gtgccaaagc ctgccctgcc aacttcttgg cagctgccga cgacaaactc A agtgggttcc aggggagctt cctgtggccc atactggtgg ttgagttcct ggtggccgtg gccagcaatg gccctggccct gtaccgcttc agcatccgga agcagcgc atggcacccc gccgtggtct tctctgtcca gctggcagtc agcacctgc tctgcgtct gacgtgccc ccgtggccg cctacctcta tcccccaag cactggcgt atggggaggc cgcgtgccg ctggagcgt tctcttccac ctgcaacctg ctgggcagcg tcatcttcat cactgcatc agcctcaacc gctacctgg gctctgac ccttcttcg cccgaagcca cctgcgaccc aagcacgct gggccgtgag cgtgccggc tgggtcctgg ccgcccctg gcccagccc acactcagct tctccacct gaagaggcc cagcaggggg cgggcaactg cagcgtggcc aggcccgagg cctgcatcaa gtgtctggg acagcagacc acgggctggc ggcctacaga gcgtatagcc tgggtctggc ggggttggc tgcggcctgc cgtgctgct cagctggca gcctacggcg cctcggcg ggcctgcta cgcagccag gcatgactgt ggcgagaag ctgcgtggt cagcgttgg ggcagtggt gtggccctct agccagctc ctatgtgcc taccacatca tgcgggtgct caactggat gctcggcggc gctggagcac ccgctgccc agctttgcag acatagccca ggcacagca gccctggagc tggggcccta cgtgggctac caggtgatc gggccctcat gccctggc tctgtgtcc acccttact ctacatggcc gcagtggcca gctgggctg ctgctgccga cactgcccc gctacagga cagctggac ccagaggac ccaagagcac tggccaaagc ctgcccctca atgccacagc cgcccctaaa ccgtcagagc ccagtcctc tgaactgag caatga	Homo sapiens
362	6853	Purinergic Receptor P2Y11	NP_002557.1	MDRGAKSCPA NFLAAADKL SGFGDFLWP ILVVEFLVAV ASNGLALYRE SIRQRPWHP P AVFVSQGLAV SDLLCALTLPLAAALYPPK HWRYGEAACR LERFLFTCNL LGSVIFITCI SLNRYLGIVH PFFARSHLRP KHAWAVSAG WVLAALLAMP TLFSLKRP QOAGNCSVA RPEACIKCLG TADHGLAAYR AYSLVLGLG CGLPLLLTLA AYCALGRAVL RSPGMTVAEK LRVAALVASG VALYASSYVP YHIMRVNLVD ARRWSTRCP SEADIAQATA ALELGPYVGY	Homo sapiens

363	6921	G Protein- Coupled Receptor GPR39	NM_001508	atggcttcac ccagcctccc gggcagtgac tgctcccaaa tcattgatca cagtcatgtc A cccaggtttg aggtggccac ctggatcaaa atcacccctta ttctggtga cctgatcatc ttcgtgatgg gccttctggg gaacagcgcc accattcggg tcacccaggt gctgcagaag aaaggatact tgcagaagga ggtgacagac cacatggtga gtttggcttg ctcggacatc ttggtgttcc tcactggcat gccatggag ttctacagca tcacttgaa tcccctgacc acgtccagct acacccctgc ctgcaagctg cacactttcc tcttcgaggc ctgcagctac gctacgctgc tgcacgtgct gacactcagc tttagcgct acatcgccat ctgtcacccc ttcaggtaca aggtgtgtc gggaccttgc caggtgaagc tgctgattgg ctctcttg gtcacctcgg cctggtggc actgcccctg ctgtttgcca tgggtactga gtaccccctg gtgaacgtgc ccagccaccg ggtctcact tgcaaccgt ccagcaccg ccaccagag cagcccgaga cctccaatat gtccatctgt accaacctct ccagccgtg gacgtgttc cagtcagca tcttcggcgc ctctgtgtc tactctgtg tctgtcttc cgtagccttc atgtgctgga acatgatgca ggtgctcatg aaagccaga agggctcgt ggcgggggc acgggcccctc cgcagctgag gaagtccgag agcgaagaga gcaggaccgc caggaggcag accatcatct tctgaggct gattgtgtg acattggccg tatgctgat gcccaaccag attcggagga tcatggctgc ggcacaccc aagcacgact ggacgaggtc ctacttcgg gcgtacatga tctctctccc ctctcggag acgtttttct acctcagctc ggtcatcaac ccgtcctgt acacggtgtc ctgcagcag cgcacaccac gagaagcgc tgctcgtgca ggtcgtgtg tgccgctgt cgtgcagca cgcacaccac gagaagcgc tgccgtaca tgcgactcc accacgaca gcgccgctt tgtgcagcgc cgtgtgtct tcgctcccg gcgccagtc tctgcaagga gaactgagaa gattttctta agcacttttc agagcaggc cgagcccccag tctaagtcctc agtcattgag tctcagtgca cttagagcca actcaggcgc gaaaccagcc aattctgctg cagagaatgg ttttcaggag catgaagttt ga MASPSLPD CSQIIDSHV PEFEVATWIK ITLILVYLII FVMGLLNSA TIRVTQVLQK P KGYLQKEVTD HMVSLACSDI LVFLIGMPME FYSIWNPLT TSSYTLCKL HTFLFEACSY ATLLHLVTL FERYIAICHP FRYKAVSGPC QVKLLIGFVW VTSALVALPL LFAMGTEYPL VNVPSTRGLT CNRSSTRHHE QPETSNMISC TNLSSRWTFV QSSIFGAFV YLVVLLSVAF MCWNMMQVLM KSQKSLAGG TRPPQLRKSE SEESTARRQ TIIFLRLIV TLAVCWMPNQ IRRIMAAKP KHDWTRSYER AYMILLPFSE TFFYLLSSVIN PLYTVSSQ FRRFVQVLC CRLSLQHANH EKRLRVHAHS TTDSARFVQR PLLFASRRQS SARTEKIFL STFQSEAEPO SKQSLSLES LEPNSGAKPA NSAAENGFEQ HEV	Homo sapiens
364	6921	G Protein- Coupled Receptor GPR39	NP_001499.1	ggacagtgcc ccgggagct tcccgtcgc gaagacccag acgctgcag gagccgggc A agcctcgggg tcagcgccac catgaacgtc tcgggtgtcc cagggccgg gaacgcgagc cagcgggcgg cggggggag cgtgcacccc gagcggtca tctgtccct gctcttcgcy ctcatcttcc tctgtggcag cgtgggcaac acgctgtgtc tggcggtgt gctgcgggc ggccaggcgg tcagcactac caacctgttc atcctaac tggcggtggc gacctgtgt ttcatcctgt gctgctgtcc ctccaggcc acctatata ccctggacgg ctgggtgttc ggctcgtgc tgtgcaaggc ggtgcacttc ctcatcttc tcacatgca cgccagcagc ttcacgctgg ccgccgtctc cctggacagg tatctggcca tccgctacc gctgactcc	Homo sapiens
365	7221	Galanin Receptor GalR2	NM_003857		Homo sapiens

366	7221	Galanin Receptor GalR2	NP_003848.1	<p>cgcgagctgc gcacgcctcg aaacgcgctg gcagccatcg ggctcatctg ggggctgctg  ctgtcttctt cggggcccta cctgagctac taccgccagt cgcagctggc caacctgacc  gtgtgccatc cgcgctggag cgccctctgc cgcgcgcca tggacatctg caacctgctc  ttcagctacc tgcctctgt gctggttctc ggcctgacct acgcgcgcac cttgcgctac  ctctggcgcg cgtcgacc cgtggccgcg ggcctgggtg cccggcgcgcc caagcgcaag  gtgacacgca tgatctcat cgtggccgcg cttcttctgc tctgctggat gccccaccac  gcgctcatcc tctgctgtg gttcgcccgag ttcccgctca cgcgcgccac ttatgcgctt  cgcatcctct cgcacctgtt ctctacgccc aactcctgag tcaaccccat cgtttacgag  ctggtctcca agcacttccg caaaggcttc cgcacgatct gcgcgggccc gctgggcccgt  gccccaggcc gagcctcggg ccgtgtgtgc gctgcccgcg ggggcaaccca cagtggcagc  gtgttgagc gcgagtcag cgcacctgtt cacatgagc aggcggcggg ggccttctgt  ccctgccccg gccttctcca gccatgcac ctcgagccct gtcctggccc gtcctggcag  ggcccaagg caggcgacag catcctgacg gttgatgtg cctgaaagca cttagcgggc  gcgctgggat gtcacagagt tggagtcatt gttgggggac cgtggggccc  NMVSGCPGAG NASQAGGGG WHEAVIVPL LFALIFLVGT VGNLVLAVL IRGGQAVSTT P  NLFILNLGVA DLFILCCVP FQATYITLDG WVFGLLCKA VHFLIFLTMH ASFTLAASVS  LDRLAIRYP LHSRELTPR NALAAGLIW GLSLFSGPY LSYYRQSLA NLTVCHPAWS  APRRAMDIC TFVSYLLPV LVLGTYART LRYLWRAVDF VAAGSGARRA KRKVTMILI  VAALFCLCWM PHHALILCVW FGFPLTRAT YALRILSHLV SYANSCVNPI VYALVSKHFR  KGERTICAGL LGRAPGRASG RVCAARGTH SGSVLERESS DLLHMFSEAG ALRPCPGASQ  PCILEPCGP SWQPKAGDS ILTVDA</p>	Homo sapiens
367	7246	Orexin Receptor 1	NM_001525	<p>ctctccctca ggaagtttga ggcctgagacc cgaaaagacc tgggtgcaag cctccaggca A  ccctgaaggg agtgggctga gggctggccc aagctccctc ctctccctct gttagagccta  ggatgccccct ctgctgcagc ggcctcctgag ctcattggagc ctcagccac cccaggggcc  cagatggggg tcccccttg cagcagagag ccgtccctctg tgcctccaga ctatgaagat  gagttctctc gctatctgtg gcgtgattat ctgtacccaa aacagtatga gtgggtcctc  atcgagcctt atgtggctgt gttcgtctgt gccctggtg gcaacacgct ggtcctgcctg  gcggtgtggc ggaaccacca catgaggaca gtcaccaact acttcattgt caacctgtcc  ctggctgacg ttctggtgac tgctatctgc ctgcccggcca gcctgctggt ggacatcact  gagtcctggc tgttcggcca tgccctctgc aaggtcatcc cctatctaca ggtgtgtcc  gtgtcagtgg cagtgtctaac tctcagcttc atcgcccttg accgctggtg tgccatctgc  caccactat tgttcaagag cacagcccg cgggcccgtg gctccatcct gggcatctgg  gctgtgtgc tggccatcat ggtgccccag tctgacgtca tggaaatgcag cagtgtgtg  cctgagctag ccaaccgcac acggtctctt ctgagctgtg atgaacgctg ggcagatgac  ctctatccca agatctacca cagtgtcttc ttatttgtca cctacctggc cccactgggc  ctcatggcca tggcctattt ccagatattc cgcaagctct gggcccgcca gatccccggc  accacctcag cactggtgcg gaactggaag cgccccctcag accagctggg ggacctggag  cagggcctga gtggagagcc ccagcccccg ggcgcgcctt tcctggctga agtgaagcag  atgcgtgcac ggaggaagac agccaagatg ctgatggttg tgcgtgtgt cttcgccctc  tgctacctgc ccatcagcgt cctcaatgtc cttaaagaggg tgttcgggat gttccgcca  gccagtgacc gcgaagctgt ctacgcctgc ttcaccttct cccactgggt ggtgtacgcc</p>	Homo sapiens

368	7246	Orexin Receptor 1	NP_001516.1	MEPSATPGAQ MGVPFGSREP SPVPPDYDE FLRYIMRDYL YPKQYEWVLI AAYVAVFVVA P LVGNTLVCLA VWRNHMRTV TNYFIVNLSL ADVLVTALCL PASLLVDITE SWLFHALCK VIPYLQAVSV SVAVLTLSFI ALDRWYAICH PLEFKSTARR ARGSIILGIWA VSLAIMVPQA AVMECSSVLP ELANRTRLES VCDERWADDL YPKIYHSCFF IVTYLAPLGL MAMAYFQIFR KLWGRQIPGT TSALVRNWKR PSDQLGDLEQ GLSGEPQPRG RAFLAEVKQM RARRKTAKML MVLLVFALC YLPISVLNVL KRVFGMFRQA SDREAVYACF TFSHWLVYAN SAANPIIYNF LSGKFRREQFK AAFSCCLPGL GPCGSLKAPS PRSSASHKSL SLQSRCSISK ISEHVVLTSV TTVLP	Homo sapiens
369	7247	Orexin Receptor 2	NM_001526	gggggggggg taattgagct tcagctgagc cggaagtagc tttctctctc tgggtgcatt A gctgcagcct ccagtgccgg gtccctagtt cctcagctgc ctatctctcc ggtgcaacat cgctgtaaa gacagcaag ccaccgcaga agttgcccgg cagaagactc cggaagcatt ggctcagtaa cttttcacgt cattttctgc tggggagccc cttctagcct ctccgcgcag cctttccac cgcaaatcac cagtgtcat ggggcagggcg gagaggagct tgcagcattg agcggaaccg gacttgagcc cgtgatgtcc ggcaccaaat tggaggactc cccccctgt cgcaactggt catctgcttc ggagctgaat gaaactcaag agccctttt aaaceccacc gactatgacg acgaggaatt cctgcggtac ctgtgaggg aatacctgca ccgaaagaa tatgagtggg tctgatgcg cggtacatc atcgtgttcg tctgggtctc cattgggaac gtcctgggtt gtgtggcagt gtggaagaac caccacatga ggacggtaac caactactc atagtcaatc tttctctggc tgatgtgctc tgaccatca cctgccttcc agccacactg gtcgtggata tcaactgagac ctgggttttt ggacagtcctc tttgcaaat gattccttat ctacagaccg tgcggtgtc tgtgtctgtc ctcaactga gctgtatcg cttggatcgg tggatgcaa tctgtcacc tttgatgtt aagagcacag caaagcggc cgtaacacg attgtcatc tctggattgt cctctgcat ataattgattc ctcaggccat cgtcatggag tgacgaccg tgttcccagg cttagccaat aaaaacaccc tctttacggt gtgtgatgag cgctgggtg gtgaaattta tcccaagatg taccacatct gtttcttctc ggtgacatac atggcaccac tgtgtctcat ggtgttggt tatctgcaaa tatttcgcaa actctggtgt cgacagatcc ctggaacatc atctgtagt cagagaaaat ggaagccct gcagcctgtt tcacagcctc gaggccagg acagccaacg aagtcocgga tgagcgtgt ggcggtgaa ataaagcaga tccgagccag aaggaaaaa gcccgatgt tgatggtgt gcttttggtgta tttgcaattt gctatctacc aattagcatc ctcaatgtgc taaagagagt atttgggagt tttgcccata ctgaagacag agagactgt tatgcctggt ttaccttttc acactggctt gtatatgcca atagtgtcg gaatccaatt atttataatt ttctcagtg aaaatttca gaggaattta aagctgcgtt ttcttgctgt tgccttgag ttcaccatcg ccaggaggat cggtcacca ggggacgaac tagcacagag agccggaagt ccttgaccac tcaaatcagc	Homo sapiens

NP\_001517.1  
Orexin  
Receptor 2

370 7247

aactttgata acatatcaaa actttctgag caagtgtgac tcaactagcat aagcacactc  
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gatactgag taaaactatc ctttttaaaa tcaactggaa cagaaatttt attatcctat  
gatgtgaagc taaaattact tgtggatctt tttttttttt aatctattgc tctttggaaa  
taaaaaaaa gtcagtttaa aatgaaaaaa aaaaaaaa aat  
MSGKLEDSF PCRNWSSASE LNETQEPFLN PTDYDDEEFL RYLWREYLHP KEYEWVLIAG P  
YIIVFVALI GNVLCVAVW KNHMRFTVN YFIWNLSLAD VLVITITCLPA TLVVDITETW  
FFGQSLCKVI PYLQTVSVSV SVTLSCIAL DRWYAICHL MFKSTAKRAR NSIVIIWIVS  
CIIMIPOAIV MECSTVFPGL ANKTLFTVC DERWGGEIYP KMYHICFFLV TYMAPLCLMV  
LAYLQIFRKL WCRQIPGTSS VVQRKWKPLQ PVSQPRGPGQ PTKSRMSAVA AEIKQIRARR  
KTARMLMVVL LVFAICYLPI SILNLKRVF GMEFHTEDRE TVYAWFTFESH WLWYANSAAN  
PIIYNFLSGK FREEFKAFS CCCLGVHHRQ EDRLTRGRTS TESRKSLLTQ ISNFDNISKL  
SEQVVLTSIS TLPAANGAGP LQNW

Homo  
sapiens

NM\_000952

371 8436 Platelet-  
Activating  
Factor  
Receptor

Homo  
sapiens

A

ccagctgata ttccagccca cagcaatgga gccacatgac tcctcccaca tggactctga  
gttccgatac actctcttcc cgattgttta cagcatcatc tttgtgctcg gggctattgc  
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NP\_000943.1  
Platelet-  
Activating  
Factor  
Receptor

372 8436

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FIICFVPHV VQLPWTLAEL GFQDSKFHQ INDHQVTLIC LLSTNCVLDL VIYCFLTRKF  
RKHLTEKFYS MRSSRKCSRA TTDTVTEVV PFNQIPGNSL KN

Homo  
sapiens

NM\_007223

373 8509 G Protein-  
Coupled  
Receptor  
Ls8509

Homo  
sapiens

A

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374 8509 G Protein- NP\_009154.1 Homo sapiens  
Coupled  
Receptor  
Ls8509

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IIAALRTPN TISIPYASOR EAEHLATLLS MMVFILCSV PYATLVVYQT VLNVPDTSVF  
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PSIRSGSOLL EMFHIGQQI FKPTDEEES EAKYIGSADF QAKEIFSTCL EGEQGPQFAP  
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375 8896 Neuropeptide NM\_006173 Homo sapiens  
Y Receptor  
Type 6  
Pseudogene

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376	8896	Neuropeptide NP_006164.1 Y Receptor Type 6 Pseudogene	caagaatga gaatgagaaa gcagagagag aggcacaacag cagtgatggc tggggaacaa tggtcacaga tacttttatt caatggaata tctacaaaag ttatgactaa tgatatgcct agtaaaaaca ctgctatacc tcttagcac tgagaat mevsnhpnas nttstknns affyfesccp pspallllci aytvvlivgl fgnslslili P fkkgkqgnf tsilianlsl sdtlvcvnci hftliiytlmd hwifgdtmcr ltsyvvqsvsi svsifslvft averyqlivn prgwkspsvth aywgitliwl fslslsipff lshltdepf rnslsptdly thqvacvenw pskkdrllft tslfllyfyf plgfilicyl kiviclrrrn akvdkkene grlnenkrin tmlisivtf gacwlpriess msltgmrc cattccacc cttccttctt taataagcag gaggcaaaa gacaaattcc aaagaggatt A gttcagttca agggaatgaa gaattcagaa taattttggt aaatggattc caatctcggg aataagaata agctgaacag ttgacctgct ttgaagaaac atactgtcca ttgtctaaa ataatctata acaaccaaac caatcaaaat gaattcaaca ttattttccc aggttgaaaa tcattcagtc cactctaatt tctcagagaa gaatgcccag cttctggctt ttgaaaaatga tgattgtcat ctgccccttg ccatgatatt taccttagct cttgcttatg gagctgtgat cattcttggt gtctctggaa acctggcctt gatcataatc atcttgaaac aaaaggagat gagaaatggt accaacatcc tgattgtgaa cctttccttc tcagacttgc ttgttgccat catgtgtctc cctttacat ttgtctacac attaatggac cactgggtct ttgttgaggc gatgtgtaag ttgaatcctt ttgtgcaatg tgttcaatc actgtgtcca tttctctct ggttctcatt gctgtggaac gacatcagct gataatcaac cctcgagggg ggagacaaaa taatagacat gcttatgtag gtattgctgt gatttgggtc cttgctgtgg cttctctctt gcctttcctg atctaccaag taatgactga tgagccgttc caaaatgtaa cacttgatgc gtacaaagac aaatacgtgt gctttgatca atttccatcg gactctcata ggtgtcttta taccactctc ctcttggtgc tgcagtattt tgggtccactt tgtttatat ttatttgcta cttcaagata tatatacgcc taaaaaggag aaacaacatg atggacaaga tgagagacaa taagtacagg tccagtgaac ccaaaagaat caatatcatg ctgctctcca ttgtggtagc atttgcagtc tgctggctcc ctcttaccat cttaaacact gtgtttgatt ggaatcatca gatcattgct acctgcaacc acaatctgtt attcctgctc tgccacctca cagcaatgat atccacttgt gtcaacccca tattttatgg gtctctgaac aaaaacttc agagagactt gcagttcttc tcaactttt gtgatttccg gtctcgggat gatgattatg aaacaatagc catgtccacg atgcacacag atgtttccaa aacttctttg aagcaagcaa gccagtcgc atttaaaaaa atcaacaaca atgatgataa tgaaaaaatc tgaaactact tatagcctat ggtcccgat gatctctgt taaaaacaag cacaacctgc aacatacttt gattacctgt tctcccaagg aatgggggtg aaatcatttg aaaaacttctt agattttctt gtcttgcttt ttactgctt ttgtgtagt gtcataatta catttgaac aaagggtgtg ggcttgggg tctctggaa atagttttga ccagacatct ttgaagtgtt ttttgtgaat ttatgcatat aatataaaga cttttatact gtacttattg gatgaaatt tctttaaagt attacatgc gctgacttca gaagtacctg ccattcaata cggatcattag attgggtcat cttgattaga ttagattaga ttgattgtc aacagatttg gccatctta ctttatgata ggcatcatt tagtgtgtta caatagtaac agtatgcaa aggagccgaa agatagctt gaagtcattc agaagtgggt tgaggttctt gtttttgggt ggttttgggt tgtttttt ttttttacc ttaaggaggg ctttcatctt ctcaggactg attgtcactt aaatcaaat	Homo sapiens
377	9421	Neuropeptide nm_000909 Y Receptor Type 1		Homo sapiens

378 9421 Neuropeptide NP\_000900.1  
Y Receptor  
Type 1

Homo  
sapiens

ttaaaaatga ataaaaagac atactttctca gctgcaataa ttatggagaa ttgggcaacc  
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MNSTLFSQVE NHSVHSNFSE KNAQLLAFEN DDCHLPLAMI FTLLALAYGAV IILGVSGNLA P

379 9834 Corticotropin releasing factor  
Receptor 1

Homo  
sapiens

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380	9834	Corticotropin releasing factor Receptor 1	NP_004373.1	MGHPQLRLV KALLLLGLNP VSASLQDQHC ESLSLASNIS DNGYRECLAN GSWAARVNYS P	Homo sapiens
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				AFILRNATWF VVQLTMSPEV HQSNVWCRL VTAAYNYFHV TNFFWMEGEG CYLHTAIVLT	
				YSTDRLRKWM FICIGWGVPF PIIVAWAIGK LYDNEKCNWF GKRPGVYTDY IYQGPMLIVL	
				LINFIIFLNI VRILMTKLRA STTSETIQYR KAVKATLVLL PLLGITYMLF FVNPGEDEV	
				RVVFIYFNSF LESFQGFVS VFYCFLNSEV RSAIRKRWHR WQDKHSIRAR VARANSIPT	
				PTRVSEHSIK QSTAV	
381	10457	Frizzled-2	NM_001466	cgagtaaaagt ttgcaaaag ggcgggag ggcagaccgc agcagaggag cgcgggggaa A	Homo sapiens
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				acgatcgaaa ccatttcaact tttaggttgc tttttaaag agaactctct gcccaacacc	ccc

382	10457	Frizzled-2	NP_001457.1	NP_001457.1	MRPRSALPRL LLPLLLLPAA GPAQFHGEKG ISIPDHGFCQ PISIPLCTDI AYNQTIMPNL P LIGHTNQEDAG LEVHQFYPLV KVQCSPELRF FLCSMYAPVC TVLEQAIPPC RSICERARQG CEALMNKFGF QWPERLRCEH FPRHGAEQIC VQONHSESDG PALLTAPP PP GLQPGAGGTP GGPGGGGAPP RYATLEHPEH CPRVLKVPYS LSYKFLGERD CAAPCEPARP DGSMMFFSQEE TFEARLMILT WSVLCCASTF FVTYYLVDM QFRYPERPPI IFLSGCYTMV SVAYIAGFVL QERVVCNERF SEDGYRTVVQ GTKKEGCTIL FMMLYFFSMA SSIWWVILSL TWFLAAGMKW GHEAIEANSQ YFHAAWAVP AVKTITILAM GOIDGDLISG VCFVGLNSLD PLRGFVLAPL FVYLFIGTSF LLAGFVSLFR IRTIMKHDGT KTEKLERLMV RIGVFSVLYT VPATIVIACY FYEQAIFREHW ERSWVSQHCK SLAIPCPAHY TPRMSPDFTV YMIKYLMTLI VGITSGFWIW SGKTLHSWRK FYTRLTNSRH GETTV	Homo sapiens
383	11968	Putative Leukocyte Platelet-Activating Factor Receptor (HUMNPIIY20)	NM_022571	NM_022571	atggccttac tgggcagcca gcaactccggc gccccctccg cggcccgggc acctggcggg A acttctctcag cggccacggc ggccgtgctc tccttcagca cctggcgac cgcggcgctg gggaacctga ggcacgcaag cggagggcggc acagctgccc ctcgggtgg cggcgccctt ggcgggtccc gggcagcggc gggcagcggc gggcggtga cggcgccgtt agcccgagg ggcgccggc tctgtcgca cggagctgca gggcgccccc aggcgctcgt cctcctgctc atcttctgc tgtctagcct tggcaactgc cgggtgatgg ggggtattgt gaagcaccgg cagctccgca ccgtcaccac cgccttcac cgtctgctgt cctatcgga tctgctcac ggcgtgctct gcctgcccgc cgccttctct gacctctca ctcggccggc ggggttcggc cctgcgtgc ccgcggggcc ctcggcgggc tctgcccggc caagccgtt cttcagctcg tgcttcggca tctgtacgc tcagctggc gctcatctcg ttggaccgtt actgcgctat cgtcgccgc cgcgggagaa gategggccg cggcgccgc tgcagctgct ggcggggcgc tggctgacgg ccctgggctt ctcctggccc tgggagctgc tggggggccc cggggaactc ggcgggggc agagcttcca cggctgccc cccgggacct cccgggacct cgcgcagctg ggcgccccc tcagctggg gctggtggtg gctgctacc cctggccctt cctgctcacc tgcttctgc actaccacat ctgcaagacg gtgcgctgt cggacgtgcg cgtgcggccg gtgaacacct acgcgcgct gctgcgttct tcagcgaggt gcgcaaggcc accaccgtcc tcacatcatga	Homo sapiens
384	11968	Putative Leukocyte Platelet-Activating Factor Receptor (HUMNPIIY20)	NP_072093.1	NP_072093.1	MALLGSQHS APSAAGPPGG TSSAATAAVL SFSTVATAAL GNLSDASGG TAAAPGGGGL P GGSGAAREAG AAVRRPLGPE AAPLLSHGAA VAAQALVLLL IFLSSLGNC AVMGVIVKHR QLRTVTNAFI LSLSLDLIT ALLCLPAFL DLFTPPGSA PALPAGPWRG FCRPSRFFSS CFGIVYAQRG AHLVGPLLR RRPREKIGR RRALQLLAGA WLTALGFSLP WELLGAPREL AAGQSFHGCL YRTSPDPAQL GGFVSGLV ACYLLPFLLI CFCHYHICKT VRLSDVRVRP VNTYARVLR SARCARPPPS SS	Homo sapiens
385	14198	Interleukin-8 Receptor B	nm_001557	nm_001557	cattcagaga cagaaggtag atagacaaa atccacccttc agactggtag gctcctccag A aagccatcag acaggaagat gtgaaaaatcc ccagcactca tcccagaatc actaagtggc acctgtcccg ggcaaaatc ccaggacaga cctcatgtt cctctgtgg aatacctccc caggaggcca tctgtgatt ccccttgca acccaggtca gaagtctcat cgtcaaggtt gtttcatctt tttttctctg tctaacagct ctgactacca cccaaccttg aggcacagtg aagacatcgg tggccactcc aataacagca ggtcacagct gctcttctg aggtgtccta caggtgaaaa gccacgcgac ctagtcagga ttttaagtta cctcaaaaat ggaagatttt	Homo sapiens

aacatggaga gtgacagctt tgaagatttc tggaaagggtg aagatcttag taattacagt  
tacagctcta cctgcccc tttctacta gatgcgccc catgtgaacc agaaccctg  
gaaatcaaca agtattttgt ggtcattatc tatgcctgg tattcctgct gagcctgctg  
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cagaagcacc gggccatggc ggtcatcttt gctgtcgtcc tcatcttct gctctgctgg  
ctgcccatac acctggtcct gctggcagac acctcatga ggaccagggt gatccaggag  
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ccactggctc ttcttggctc cagtgtcaat gcagccccc ttgtggteac aggaagttaga  
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tggcactcta tgttctaaga agtgaaaaac tacactccag tgagacagct ctgcatactc  
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aacccatatt tgtacaccaa tattcatagc agcttattca caagacccaa aaggcagaag  
caacccaaat gttcatcaat gaatgaatga atggctaagc aaaatgtgat atgtacctaa  
cgaagtatcc ttcagcctga aagaggaaatg aagtactcat acatgttaca acacggacga  
accttgaaaa ctttatgcta agtgaaataa gccagacatc aacagataaa tagtttatga  
ttccacctac atgaggtact gagagtgaac aaatttacag agacagaaag cagaacagtg  
attaccaggg actgagggga ggggagcatg ggaagtgcag gtttaattggg cacagggttt  
atgttttaga tgttgaaaaa gtctcgaga taaacagttag tgatagtgtt accgcaatgt  
gacttaatgc cactaaattg acacttaaaa atgggttaaa tgggtcaattt tgttatgtat  
attttatatc aatttaaaa aaacacctgag ccccaaaagg tattttaatc accaaggctg  
attaaaccaa ggctagaacc acctgcctat atttttgtt aaatgattc attcaatatac  
tttttttaa taaaccattt ttacttgggt gtttat

386	14198	Interleukin-8 Receptor B	NP_001548.1	MEDFNMESDS	FEDFWKGEDL	SNYSYSSTLP	PFLDDAPCE	PESLEINKYF	VVIYALVEL	P	Homo sapiens
				LSLLGNSLVM	LVILYSRVGR	SVTDVYLLNL	ALADLEFALT	LPIWAASKVN	GWIFGTFLCK		
				VVSLKEVNE	YSGILLIACI	SVDRYLAIVH	ATRTLTQKRY	IVKFICLSIW	GLSLILALPV		
				LLFRRTVYSS	NVSPACYEDM	GNNTANWRML	LRILPQSEFG	IVPFLIMLFC	YGFTLRLTFK		
				AHMGOQKHRAM	RVIFAVVLIF	LLCWLPYNLV	LLADTLMRTQ	VIQETCERN	HIDRALDATE		
				ILGILHSCIN	PLIYAFIGQK	FRHGLLKILA	IHGLISKDSL	PKDSRPSFVG	SSSGHTSTTL		
387	14641	Calcitonin Receptor	NM_001742							A	Homo sapiens
				cagaattcca	ggacaaaagag	atcittcaaaa	atcaaaaatg	aggttcacat	ttacaagccg		
				gtgcttgcca	ctgtttcttc	ttctaaatca	cccaacccca	attcttcctg	ccttttcaaa		
				tcaaacctat	ccaacaatag	agcccaagcc	atttctttac	gtcgtaggac	gaaagaagat		
				gatggatgca	cagtacaaat	gctatgaccg	aatgcagcag	ttaccgcgat	accaaggaga		
				aggtccatat	tgcaaatcgca	cctgggatgg	atggctgtgc	tgggatgaca	caccggctgg		
				agtattgtcc	tatcagttct	gccagatta	ttttccggat	ttgatccat	cagaaaaggt		
				tacaaaaatc	tgtgatgaaa	aaggtgtttg	gtttaaaccat	cctgaaaaa	atcgaacctg		
				gtccaaactat	actatgtgca	atgctttcac	tcttgagaaa	ctgaagaatg	catatgttct		
				gtactatttg	gctattgtgg	gtcattcttt	gtcaattttc	accctagtga	tttccctggg		
				gattttcgtg	tttttcagga	gccttgctg	ccaaagggtg	accctgcaca	agaacatgtt		
				tcttacttac	attctgaatt	ctatgattat	catcatccac	ctggttgaag	tagtacccaa		
				tggagagctc	gtcgaaagg	accgggtgag	ctgcaagatt	ttgcattttt	tccaccagta		
				catgatggcc	tgcaactatt	tctggatgct	ctgtgaagg	atctatcttc	atacactcat		
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				gttcccgctg	gtgccaaaca	ctatccatgc	tattaccagg	gccgtgtact	tcaatgacaa		
				ctgctggctg	agtgtggaaa	cccatgtgct	ttacataatc	catggacctg	tcatggcggc		
				acttgtggtc	aatttcttct	ttttgctcaa	cattgtccgg	gtgcttgtga	ccaaaatagag		
				ggaaacccat	gaggcggaat	ccacatgta	cctgaaggct	gtgaaggcca	ccatgatcct		
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				tgggaagata	tatgattacg	tgatgcactc	tctgattcat	ttccagggct	tctttgttgc		
				gaccatctac	tgcttctgca	acaatgaggt	ccaaaccacc	gtgaagcgcc	aatgggcccc		
				attcaaaatt	cagtggaaac	agcgttgggg	gaggcgcccc	tccaaaccgt	ctgctcgcg		
				tgcagccgct	gctgcggagg	ctggcgacat	cccaatttac	atctgccatc	aggagctgag		
				gaatgaacca	gccaacaacc	aaggcgagga	gagtgcctgag	atcatccctt	tgaatatcat		
				agagcaagag	tcactcgtct	gaatgtgaag	gcaaacacacag	catcgtgatc	actgagccat		
				catttccctgg	gagaaagacc	atgcatttaa	agttattctc	atcctccacg	gaaccgaaac		
				tatcatttgt	gaagaattat	tcagtgaatt	tgtccattgt	aaatcctgaag	aaagtttattc		
				tgtgtactgt	tgctttggga	gacagtctag	tgactggagtc	tcccactgca	acttgtgaac		
				tccatcattc	atccaggact	gagatgcaaa	tgtcacagta	atgcaagcaa	agtatcaaaag		
				aaaaacaatg	aaattgacct	agttcagata	caggtgtgctc	cttgtcaata	ctgagccatt		
				tatacccttg	aaatattaaa	atcactgtca	atatttttat	ttttaaactct	ggattttgaa		
				ttagattatt	tctgtatttg	gctatggatc	ttttttttaa	ttttttttaa	tttcagttcaa		
				ttctgatgtt	actgagatgt	tttaccatcc	ttacaatgta	aaccacatga	actacgtgac		
				ctctgcaaga	caaaagcggt	ttctaataga	gagattagta	aatatgtgaa	gaaaagacc		
				tgcattttggc	aggaagatgt	atgctttgaa	tgcaaaagaa	atttagatgc	aatttgtga		

388	14641	Calcitonin Receptor	NP_001733.1	<p> aaacattaca tgctcagctt ggttttggac aagcctgtcc attgggcagg acctagctgt  tgtaagaat tggcttaat gttgaatgta ttttggttgc tgatgtttat aaactgagag  gtcacaaaga atctataact aaaaattttt acaaaatgc aaaaatata attcttagtg  gaagacaata ctccctttaa agagagtttg ccactccctt aactccagg atttataaag  caaattactc caaggtttat aaagcagatt acctcttgcc ctgggtgtgt atctagcagt  aaaagataaa ttgttgaat attgtaatt aaaagactcc acataagtcc attaactgct  ttccaccag cttcaagct taaaagagc tcaggctttt ccaggaagat ccaggagggc  taattagaaa tcaacttgg gttgaccgct tgtttcttgg tattaccaaa caggagggga  aaaaattaac tgcctcaaat ttaaccataa atcaattcat gtttaacgtt tctcattaaa  atccagtatt atattatcat atctctcttt acttcccgat ataagatttt tgaataatcct  gaataaacca gtatcggttac tggcacctga aattaatttg tgaatttgca acagtaatca  gagttaccat tattaattt gtatgctaaa tgaggaggta cattgaaacc ctccaaatct  ccagtctcat ctatgtcata tttgccaact gcttttcaga agtgatttag ttgtggaaag  ataataaatt gatttgttat ggtacatat tttagccacc cagagaaaaa taattatatt  tctacagaga aaatgaattt gggatactaa agtagcttaa gtctccttta ctgaatgtaa  gggggggatac gaaaagaagg tatttttcca atcacagtgt tatgtagtat tgttctattt  ttgtttacaa acatggaaaa cagagtattt ctggcagctg tggtaacaaat gtgataatat  attgctaaaa tattttagat gttattatgc taatatagta ggggttgaag aaaaacaaat  agcttattat agaattgcac atagttctgc ccaaatatgt tgaatgtctt atgcttgtgt  atatgtataa attaatacag agtacgttaa aagcaaaaaa atgtatatatt gcataatttt  ctaaagaat atattattca tcttttcatt c </p>	YPTIEPKPFL YVGRKKKMD AQKCYDRMQ P SYQFCPDYFP DFDSEKVTK YCDEKGVWFK LAIUVHSLSI FTLVISLGIF VFFRSLGCQR LVRRDPVSCK ILHFFHQYMM ACNYFWMICE LVPTTIHAI RAVYFENDNCW LSVETHLLYI HEAESHWYLK AVKATMILVP LLGIQFVFP YCPNNEVQT TVKRQWQFK IQWNQWGRR EIIPLNIEQ ESSA	Homo sapiens
389	16041	C-C Chemokine Receptor 6	NM_004367	<p> caaacgttcc caaatcttcc cagtcggctt gcagagactc ctgtctccca ggagataacc A  agaagctgca tcttattgac agatgtctat cacattgggtg agctggagtc atcagattgt  ggggcccgga gtgaggtcga agggagtga tcaagagcact gcctgagagt caccctact  ttcctgtcac cgctgcctgt gactgaagg ggcctgaacca tacactcctt tttctacaac  cagcttgcat ttttctgccc cacaatgagc ggggaatcaa tgaatttcag cgaatgtttc  gactccagtg aagattattt tgtgtcagtc aatactcat attactcagt tgattctgag  atgttactgt gctccttgca ggaggtcagg cagttctcca agctatttgt accgattgcc  tactccttga tctgtgtctt tggcctcctg ggaatatctc tgggtgtgat cacccttgct  ttttataaga agccaggctc tatgacagac gtctatctct tgaacatggc cattgcagac  atcctctttg tcttactct cccattctgg gcagttagtc atgccactgg tgcgtgggtt  ttcagcaatg ccacgtgcaa gtgtctaaa ggcattctatg ccatcaactt taactgcggg  atgctgctcc tgacttgcat tagcatggac cgttacatcg ccattgtaca ggcgactaag </p>	PANNQGEESA gcagagactc ctgtctccca ggagataacc A cacattgggtg agctggagtc atcagattgt tcagagcact gcctgagagt caccctact ggctgaacca tacactcctt tttctacaac gggaatcaa tgaatttcag cgaatgtttc aatactcat attactcagt tgattctgag cagttctcca agctatttgt accgattgcc gggaatatctc tgggtgtgat cacccttgct gtctatctct tgaacatggc cattgcagac atgccactgg tgcgtgggtt ccatcaactt taactgcggg cgttacatcg ccattgtaca ggcgactaag	Homo sapiens

tcattccggc tcgataccag aacactaccg cgcacgaaaa tcactgcct tgtgtgtg  
gggctgtcag tcactctc cagctcaact ttgtcttcca accaaaaa caacaccca  
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tgttacacgt tcattgtcaa aaccttggtg caagctcaga attctaaaag gcacaaagcc  
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gtcctgcttg tgacggctgc aaattgggt aaatgaacc gatcctgcca gagcgaagag  
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tacaataata caaacacatg ttaggaaggt actgtcatg ctaggcag gtggctcaca  
cctgtaatcc cagcatttt ggaagctaa gtgggtgag cactgaggt caggagttg  
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aaaaaaa aggaagaac tgtcatgtaa acataccgac atgtttaaac ctgacaatgg  
tgttatttga aactttatat tgttcttga agcttaact atatctct ttaaatgca  
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390	16041	C-C Chemokine Receptor 6	NP_004358.1	<p>           aaaaaatgtg tttgtacat gaagtaggaa tcgtatttca gcttcaaggt tcagattgag            gggccactg tttggagag atggtattca ggttttttca tgtcttcaa atctgttagc            gtttgactct agaaatcaaa gaaaggagt ggttaccag acacttctt tgggtgtagc            aatgcgctga tgtgatctat gaagatgatt catgcttgaa aactagcaca gaaacatctt            gcttatttgc caagctggg agatgagctt ctctgcataa tttaaatgtt cagataaatg            aagctgactt atttaagcaa taaccttta aacattttag ctaagatgta taaaaatgtt            tccaaaatat accatact tttttcttc ttaaatgtag tacattaggt tacatcattt            ttcttgctgt cttgggcac aaaaacagtg ccatggtaac ctgacactct caggagacat            taagatagaa ggggctgttc ttacgtggtt cccattgatt cccccatat cttttgtctc            tcaggctctg gccgtctctt cctgagcctt aactgtgt         </p>	Homo sapiens
391	16599	Smoothed	NM_005631	<p>           SETADNDNAS SFTM            atggccgctg cccgccagc gggggggcg gagtccccg tctgggggt gctgtgctg A            ctgctgctgg gggaccggg cggggggcg gctcgagcg ggaacgcgac cgggctggg            cctcgagcg cggcgggag cggagaggg agcgggcgg tgaactggcc tccgcccgcg            ctgagccact gggcgggcg tggccctgc gagcgtgc gctacaaagt gtgctgtggc            tgggtgctgc cctacgggg cactccaca ctgctggcg gagactcga cccccagg            gaagcgacg gcaagctcgt gctctggtg ggcctccgga atgcccccg ctgctgggca            gtgatccagc cctgctgtg tgccgtatc atgcccagt gtgagaatga cgggtgggag            ctgccagc gtacctctg ccaggccac cggggccct gtgccatct ggagaggag            cggggtggc ctgacttct gcgctgact cctgaccgt tccctgaag ctgcacgaat            gaggtgcaga acatcaagt caacagttca ggcagtgcg aagtgcctt ggttcggaca            gacaaccca agagctggt aagggacgt gagggctgc gcatccagt ccagaacccg            ctcttcacag aggtgagca ccaggacatg cacagctaca tgcggcctt cggggccgtc            acgggctct gacgctctt caccctggc acatctgtg ctgactggcg gaactcgaat            cgctaccctg ctgttattct ctctacgtc aatgcgtgct tctttgtgg cagcatggc            tggctggccc agttcatgga tgggccccg cgagagatcg tctgctgac agatggcacc            atgaggctg gggagccac ctccaatgag actctgtct cgtcatcat ctttgtcatc            gtgtactacg cctgatggc caccacctac cagctctct tctcacta tgcctggcac            acttcttca aagccctgg cccctttgt ctaacttgc caatccttgc tctgagcag            cactgtctc cctggtcact cccctttgt tttgtgggt acaagaacta ccgataccgt            gtgagtgagg actctgtgag tggcatttgt ttgtgctatc tgggaggtta ctctctcatc            ggggcttcg tgctggccc aatcgccctg gtgctcatcg tgggaggtta ctctctcatc            cgaggagtca tgactctgt ctccatcaag agcaacacc cgggctgct gactgagaag            gctgccagca agatcaacga gacctgctg cgcctgggca tttttggctt cctggcctt            ggctttgtgc tcattacctt cagctgccac ttctacgact tcttcaacca ggctgagtg         </p>	Homo sapiens

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Homo  
sapiens

393	17250	G Protein- Coupled Receptor GPR45	NM_007227	AGDSRCQGAW TLVSNPFCPE PSPPQDFPLP SAPAPVAWAH GRRQGLGPIH SRTNLMDEL MDADSDF	atggcctgca acagcacgtc ccttgaggct tacacatacc tgctgctgaa caccagcaac A gcctcagact cggggtccac ccagttgccc gcacccctca ggaatcctt ggccatagtg atgctgctga tgaccgtggt ggggttccct ggcaacactg tggtctgcat catcgtgtac cagaggcgg ctatgcgtc ggccatcaac ctgctgctgg ccacctggc cttctccgac atcatgctgt cctctgctg catgcccctc accgcctga cctcactac cgtgcgtgg cacttgggg accacttctg ccgctctca gccagctct actggtttt tgtcctggag ggcgtggcca tcctgctcat catcagctg gccgcttcc tcactcatgt ccagcgccag gacaagctga acccgcgag ggccaaagt atcatcgcg tctcctgggt gctgtccttc tgcatcggg ggcctcgt cagggctgg acgctggtg agtgccggc gcgggcccc cagtgcgtc tgggtacac gagctccc gctgaccgc catacgtgt cacttggtg gtggccgtgt tcttcgccc ctttggcgtc atgctgtgc cctacatgt catcctcaac acggtccgca agaagccgt gcgctgac aacagctgg acagctgga cctgcggcag ctcaccagg cgggctcgc gcgctgcag cggcagcaac aggtcagct ggaattgagc ttcaagacca aggccttcc caccatcctg atcctcttc tgggttctc cctctgctgg ctgcccact ccgtctacag cctcctgtct gtgttagcc agcgtttta ctgcggttcc tccttctacg ccaccagcac ctgcgtcctg tggttcagtt acctcaagtc cgtctcaac cccatcgtct actgctggag aatacaaaa ttccgcgagg cctgcataga gttgctgccc cagacctcc aaatcctccc caaagtgcct gagcgatcc gaaggagaat ccagccaagc acagtatacg tgtgcaatga aaaccagctc gcggttag	Homo sapiens
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Homo  
sapiens

P

NP\_001287.2

G Protein-  
Coupled  
Receptor D6

396

17345

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Homo  
sapiens

A

NM\_001470

Gaba (b)  
Receptor. 1

397

17535

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399	17666	Glucagon-Like Peptide 1 Receptor	NM_002062	<p> gaattccggg ttgtgcatc cactctggaa ccgctcgtgt gtggcctgtc ggaatgacat  cgccctcatc agtctccgca cggcttccc cggcttccc gatggcccag tctgaactc  ccgcccattg ccggcgcccc cggcccgctg cgccttgccg tctgtctgtc cgggatggtg  ggcaggcccg gcccccgccc caagggtgcc actgtgtccc tctgggagac ggtgcagaaa  tggtcgagaat accgacgcca gtgccagcgc tccctgactg aggatccacc tccctgccca  gactgttct gcaaccggac ctccgatgaa tacgctgctt ggcacagatg ggaagccaggc  tcgttcctga atgtcagctg cccctggtac ctgcccctgg cccagcagtg gccgagggc  cacgtgtacc ggtctcgac agctgaaggc ctctggctgc agaaggacaa ctccagcctg  ccttgagggg acttgtcgga gtgcgaggag tccaagcag gggagagaa ctccccggag  gagcagctcc tgttctctta catcatctac acggtgggt acgcactctc ctctctgtct  ctggttatcg cctctgcgat cctcctcgcc ttcagacacc tgcactgcac caggaactac  atccacctga acctgtttgc atcctctatc ctgcgagcat tgtccgtctt catcaaggac  gcagccctga agtggtatga tagcacagcc gccagcagc accagtggga tgggtcctc  tctactctgg actctctgag ctgccgctgt gtgtttctgc tcatgcagta ctgtgtggcg </p>	Homo sapiens

400 17666 Glucagon- NP\_002053.1  
 Like Peptide  
 1 Receptor

Homo  
 sapiens

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 SNMNYWLIIR LPILFAIGN FLIFRVICI VVSKLKANLM CKTDIKCRLA KSTLLIPLL  
 GTHEVIFAV MDEHARGTLR FIKLFTLSF TSFQGLMVAI LYCFVNNEVQ LEFRKSWERW  
 RLEHLHIQRD SSMKPLKCPT SSLSSGATAG SSMYTATCQA SCS

401 18471 G Protein- NM\_016372  
 Coupled  
 Receptor  
 LOC51210

Homo  
 sapiens

gccttgcaac tggagatgct tagctgaggg ggtggctttg ttagactatt tgcaggtcgt A  
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402	18471	G Protein- Coupled Receptor LOC51210	NP_057456.1	<p>caaaaaaaa aaaaaaaagt tttg</p> <p>ccagatgtac acctaccoca gccctacgct gtggcccgcc gggagggcct ggaggctgca  gggctgctg gggcctcagc tgccagctac tgagcagc agttcgactc tgccggcggg  gtggcctacc tggatgacat cgcttccatg cctgccaca ctggcagcat caacagcaca  gacagcagc gctggaaggc agggccagc catcaatgcc tgaggcgagc tgccagggcc tgtggaggac  agccagaga ggaggccagc agggccagag tccccaggg aggaggacca ggtcaaggga  cgctctgtg gcagtagccc tttggtgccc tgttgcacc atgagctctg agggccacc  tcccggggc tcccaatccc cttggccatc tctgctca ctggggaccc tctcccctt  cccacctgct ctcatactgc tcagtgacat ggcccaggct ttccttccag ggccatgctt  ggcaaggctg gctgagggca cctccttct ctgcacctt ggacagagg cagggctggc  tctcccaatg cctccatccc atccccatgg tgccttggcc tctcaaaagc atccaccatg  gtggatggac tgaagtgtg atatttctt gatctattt ttaataaaaa ggaagaaggag  caaaaaaaa aaaaaaaagt tttg</p>	Homo sapiens
				<p>LLLLYEDIGT SRVRYWDLIL LPNVLFILF P</p> <p>LLWKLPsARA KIRITSSPIF ITFYILVFW ALVGIARAVV SMTVSTSNAA TVADKILWEI  TRFLLAIEL SVIILGLAFG TWESKSSIKR VLAITTVLSL AYSVTQGTLE ILYPDAHLA  EDFNIYGHGG RQFWLVSSCF FFLVYSLVVI LPKTPKRI SLPSPRSFYV YAGILALLNL  LQGLGVLLC FDIIEGLCCV DATFLYFSF FAPLIYVAFI RGFFGSEPKI LFSYKCOVDE  TEEPDVHLPQ PYAVARREGL EAAGAAGASA ASYSTQFDS AGGVAYLDDI ASMPCHTGTGSI  NSTDSERWKA INA</p>	
403	19072	G Protein- Coupled Receptor Ls19072	LG100650	<p>agtgatgagc ggcggtgccc tggcagtgca gtgggctggc tggatgtgtg gggcctctcc A  ctgctggcca atgcctggg cctcctcagc gttggcgcca agcagaagaa gtggaagccc  ttggagttcc tgcgtgtac actgcggccc accacatgc taaatgtggc cgtgcccac  gccactact ccgtggtgca gctgcggcgg cagcgccccg acttcgagtg gaatgaggg  ctctgcaagg tcttcgtgc cactctctac accctcacc tggccacctg tttctctgtc  acctccctct cctaccacg catgtggatg gtctgctggc ctgtcaacta ccggtgagca  tgtgaagttc tggggttctt ggggttctaa gcaggcgtga aaacaaagac atatctggtg  tgcccatggc cacacaggag tggccacac ctggcgatgc tggagggcca ggcaggctca  ggaggggctg ctgtaagctg ctgggggcat acacgtagct ttgcatgggt agacacaagc  agccaataca gaatgcttg aagagggacg tgtgacaaatg ttcacagtat ctcctatgca  aggaacaagg cctgcccaca ctggctgtgc catgactatg atatactggg ggtgtgggg  gcctgggtgg tgcggatccc ctacaggctc ccaggacct gggaggccc tgtgggtgac  gccagatccc tctgttccac cctgcctcat gccaggctga gcaatgccc aaagcaggcg  gtgcacacag tcatgggtat ctggatgggt tccctcatcc tgtcggccct gcctgccgtt  ggctggcacg acaccagca gcgcttctac accatggct gccgcttcat cgtggctgag  atcgccctgg gctttggcgt ctgcttccg acgctgggtg gcggcagcgt ggccatggg  gtgatctgca cagccatcgc ccttctccag acgctggagg tgcaggctgg gcgccaggcc  gaccgcccgc ccttaccgt gccaccatc gtggtggagg acgcgcaggg caagcggcgc  tccctccatg atggctcgga gcccgcacaa acctctctgc agaccaggg cctcgtgacc  accatagtct tcatctacga ctgcctcatg ggcttccctg tgcgtgtggg tgacggcgtc  gggtagagg gctgtctct gggacagccc tgggctgct catactccag gcacaggtg  gtgagtcct cagaccacat ccttgagat gggcttgatc atcgtcccca ttttccagat</p>	Homo sapiens



404	19072	G Protein-Coupled Receptor	ENSP00000016	4265	SDERRLP	PGSA	VGWL	VCGGLS	LLANAWG	ILS	VGAKQK	KKWK	VP	LEFL	LCT	LAA	THMLN	AV	PI
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405	19501	G Protein- Coupled Receptor KIAA0758	AB018301	LS19072	GSVAMGVICT ATALFQTLAV QVGRQADRRRA FTVPTIVVED AQGKRRSSID GSEPAKTSLQ TTGLVTTTIVE IYDCLMGFPV LWSFSSLRA DASAPWALC VLWCSVAQAL LLPVFLWACD RYRADLKAVR EKCMLMAND EESDDG	gtgcaagaag aaaaatagatg ttatgccccat ccaaatattg gcaaatgaag aaatgaaggt A gatgtgcgac aacatctctg tatctttgaa ctgtgtcagc cagggttaatg ttaattggag caaagttagaa tggagcagag aggaaaaaat aaatattcca ggaacccctg agacagacat agattctagc tgcagcagat acacccctcaa ggctgatgga acccagtgcc caagcgggtc gtctggaaca acagtcacat acacttgta tcatctctgt ggccaatcta acaataaccc cggacccaat tgcaaacata aaagtgcacat tcatctctgt tcatctctgt tcatctctgt tcatctctgt ttctgtttct gagggacaaa acttttctat aaaaatgcac agtgatgtga gtaactatga tgaggtttat tggaaacctt ctgctggaat taaaatatac caaagatttt ataccacgag gaggtatctt gatggagcag aatcagttact gacagtcacg accctgacca gggagtgga tggaaacctat cactgcacat ttagatataa gaattcctac agtattgcaa ccaagacgt cattgttcac cctgtgcctc taaagctgaa catcatggtt gatcttttgg agctactgt ttcatgcagt ggttccctc acatcaagt ctgcataagc gaggatggag actacaaagt tactttccat atggtttctt catcccttcc tctgcacaaa gaagttaaca aaaaacaagt gtgctacaaa cacatttcca atgcaagctc agtttcttgg tttcaaaaaa ctgttgatgt gtgtgtgtcac ttaccacatg ctgctaataa ttcagtttgg agcccatcta tgaagctgaa tctgtttctt ggggaaaaaaca tcatatgcca ggatccctga ataggtgtcg gagagccggg gaaagtcac cagaagctat gccgtttctt aacgttccc agcagccctg agagtccat tggcgggacc atcacttaca atgtgttagg ctcccagtg gaggagaaga gaaatgactg catctctgcc ccaataaaca gtctgtctca gatggctaag gctttgatca agagccctc tcaggatgag atgtctctca catacctgaa ggatctttct attagcatag acaagcggg acatgaaatc agctcttctc ctggaggtct gggagccatt attaacatcc ttgatctgt ctcaacagtt ccaacccaag taatttcaga aatgatgacg cactgtctct ctacggttaa tgcatctctt ggaagcccg tcttgaaacac ctggaaggtt ttacaacagc aatggacca tcagagttca cagctactac attcagtgga aagattttcc caagcattac agtcaggaga tagccctctt ttgtccttct ccaaaactaa tgtgcagatg agcagcacgg taatcaagtc cagccaccga gaaacctatc aacagaggtt tgttttccca tactttgacc tctggggcaa tgtgttcatt gacaagagct atctagaaaa ctgacagtcg gattcgtcta ttgtcaccat ggctttccca actctccaa ccatcttgc tcaggatatac caggaaaaata actttgcaga gagcttagtg atgacaacca ctgtcagcca caatacagat atgccaattca ggatttcaat gacttttaag acaaatagcc cttcaggcgg cgaacgaaag tgtgtcttct ggaacttcag gcttgccaac aacacagggg ggtgggacag cagtggtgtc tatgttgaag aaggtgatgg ggacaatgtc acctgtatct gtgaccacct aacatcattc tccatctca tgtcccttga ctccacagat cctagtctct tctgtggaat actcctggat attatttctt agtttgggtg gggttttcc atcttgagct tggcagcctg tctagtgtg gaagctgtgg tgtggaatc ggtgaccaag aatcgactt cttatatgag ccacacctgc atagtgaata tgcgtgcctc cctctgtgtc gccaacacct ggttcattgt ggtcgtgtcc atccaggaca atcgtacat actctgcaag acagcctgtg tggctgtcc cttcttctac cacttcttct acctcagcgt cttcttctgg atgctgacac tgggctctcat gctgttctat cgcctgtgtt tcattctgca	Homo sapiens
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406	19501	G Protein- Coupled Receptor KIAA0758	BAA34478.1	<p> tgaataaagc aggtccactc agaaagccat tgccttctgt cttggctatg gctgcccact  tgccatctcg gtcatacgc tgaggagccac ccagccccg gaagtctata cgaggaagaa  tgtctgttgg ctcaactggg aggaacaccaa ggccttgcgtg gcttgcgca tccagcact  gatcattgtg gtggtgaaca taaccatcac tatttgtgtc atcaccaaga tccagaggcc  ttccattgga gacaagccat gcaagcaggga gaagagcagc ctgtttcaga tcagcaagag  cattggggtc ctacacccac tcttggcct cacttgggtt tttgggtctc cacttgtgtt  cccagggacc aaccttgtgt tccatatcat atttgccatc ctcaatgtct tccagggtatt  attcatttta ctctttggat gcctctgga tctgaagga caggaagctt tgtgaataa  gttttcattg tcgagatggt ctacacagca ctcaaatgca acatccctgg gtccatccac  acctgtgttt tctatgagtt ctccaatc atcgaatattt aacaatttgt ttggtaaaaa  aggaacgtat aatgtttcca cccagaagc aaccagctca tccctggaaa actcatccag  tgcttcttcg ttgtcaact agaacacagga taatccaacc tacgtgacct ccgagggaca  gtggtgtgct ttttaaaaag agatgcttgc aaagcaatgg ggaacgtgtt ctcggggcag  gttccggga gcagatgcca aaagacttt tccatagaga agaggctttc tttgtataag  acagaataaaa aataattgtt atgtttctgt ttgttccctc cccctcccc ttgtgtgata  ccacatgtgt atagtattta agtgaaactc aagccctcaa gcccacactt ctctgtctat  attgtaatat agaatttcga agagacattt tcaatttta cacattggc acaaaagataa  gctttgatta aagtagtaag taaaaggcta cctaggaaat acttcagtga attctaagaa  ggaagggaag aggaaggaa ggaaggaa ggggaaagaa ggaaggaaag gaaagaaag  aaaaagagaa agatgaaaat aggaacaaat aaagacaaaac aacattaagg gccatatgt  aagatttcca tgttaatgat ctaataaat cactcagtc aacattgaga atttttttt  taatggctca aaaaaggaaa ctgaaagcaa gtcatggga atgaatactt tgggcagtat  cttccctgat tcttcttag taagaggagg aaaaaaggc tgaataataa gggaggaaat  tcttcatca gaacgactc aagtgataa caatatttat agaaatgaa tggaaaggaaa  tatgatcctc ctgagactaa ctttgtatgt taaggtttga actaagttaa tgtatctgca  gaggaagtat tataaagata tgtcattaga tccaagtgtc gattaaattt ttatagttta  tcagaaaaag cttatatattt agtttgttcc acattttgaa agcaaaaaat atatatgga  tatacccttc aattgccaaa tttgatattg tgcactgaag acagaccctg tcatatat  aatggcttca agcaggtact tctctgtgca ttatagaata gattttaata atcttatagc  attgtatatt attattgctg ttgtcactgt tattattatt ttgtgatactg gcccttggtg  tgttgcatag ctccctatgt attctctgtt tccatcttta agttcccaga ccaatataca  ttaagagttt tgcattggtc aaattgtgtt tattccaacc acgtggaaa ctcctggaaa  gaaattttac attcggtgtt tctgtgctcc taatgacact tgacctgtt gaacaaatgg  cagagccctt cccaaggatt tgattgttga tgaattatct gcatgtgctg tttttttgg  tgtgtatttc attaaaaaat ataaatttt atg </p>	<p> Homo sapiens </p>
				<p> CKKKIDVMP1 QILANEEMKV MCDNPNVSLN CCSQNVNWS KVENKQEGKI NIPGTPED1 P  DSSCSRITLK ADGTQCPGS SGTVIYTCF FISAYARGS ANIKVFISV ANLTITPDPI  SVSEGNFISI KCISDVSNYD EYWNYSAGI KIYQRYTTR RYLDGAESVL TVKTSREWN  GTYHCIFRYK NSYSIATKDV IVHPLPLKLN IMVDPLEATV SCSSHHIKC CIEEDGDYKV  TFHMGSSSLP AAKEVNKKQV CYKHNFNASS VSWCKTVDV CCHFTNAANN SVWSPSKLN  LVPGENITCQ DPVIGVGPFG KVIQKLCRES NVPSPESPI GGTITYKCVG SQWEEKRND </p>	

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Homo  
sapiens

408 21632 G Protein-Coupled Receptor Ls21632 BAA96055.1 P

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Homo  
sapiens

409 22315 G Protein-Coupled Receptor GPR92/GPR93 NM\_020400 A

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 acaaaaagta aattagcag acatataatt ttttttaatt ttatgatcca ttttggatgg  
 tctcaaaagt ggatgacctc attactaata ttgtgtgtaa aagtgaact tgttgccaa  
 ccaataaaca actgattgag atttagaaga tatgtaaaa aaaaaaaa aaa  
 MWPSQLLIFM MLLAPIIHAF SRAPIMAVV RRELSCSY P IELRCPGTDV IMIESANYGR P  
 TDDKICSDP AQMENIRCYL PDAYKIMSQR CNRTQCAVV AGPDVFPDPC PGTYKYLEVQ

413	25359	G Protein- Coupled Receptor GPR34	NM_005300	<p>YECVPYKVEQ KVFELCPGLLK GYQSEHLFE SDHQSGAWCK DPLQASDKIY YMPWTPYRTD  TLTEYSSKDD FIAGRPTTTY KLPHRVDGTG FVVDGALFF NKERTINIVK FDLRTRIKSG  EAIIANANYH DTSYRWGGK SDIDLAVDEN GLWYIATEQ NGKIVISQL NPYTLRIEGT  WDTAYDKRSA SNAFWICGIL YVKSVDYEDD DNEATYQKID YIYNTDQSKD SLVDVFPFNS  YQYIAADVYN PRDNLVYWN NYHVVKYSLD FGPLDSRSQ AHGQVSYIS PPIHLDSELE  RPSVKDISTT GPLGMGSTTT STTLRTTTLS PGRSTTSPVS GRNRSTSTP SPAVEVLDDM  TTHLPSASSQ IPALEESCEA VEAREIMWFK TRQGQIAKOP CPAGTIGVST YLCLAPDGIW  DPQGPDLNSC SSPWVNHITQ KLSGETAAN IARELAETQ NHLNAGDITY SVRAMDQLVG  LLDVQLRNLT PGGKDSAAARS INKLQKRERS CRAYVOAMVE TVNNLLQPOA LNAWRDLTTS  DQLRAATMLL HTVEESAFVL ADNLKTDIV RENTDNIKLE VARLSTEGNL EDLKFPENMG  HGSTIQLSAN TLKQNGRNGE IRVAFVLYNN LGPYLSTENA SMKLGTEALS TNHSHVIVNSP  VITAAINKEF SNKVYLADPV VFTVKHIQKS EENFNPCSF WSYSKRTMTG YWSTQGCRL  TTNKTHTTCS CNHLTNFAVL MAHVEVKHSD AVHDLLEDVI TWVGILLSLV CLLICITFFC  FFRGLQSDRN TIHKNLCISL FVAELLFLIG INRTDQPIAC AVFAALLHFF FLAAFTWMFL  EGVQLYIMLV EVFESEHSRR KYFYLVGYGM PALIVAVSAA VDYSYGTDK VCWLRLDTYF  IWSFIGPATL IIMLVIFLG IALYKMFHT AILKPESGCL DNINYEDNRP FIKSWVIGAI  ALLCLLGLTW AFGLMYINES TVIMAYLFTI FNSLQGMFIF IFHCVLQKKV RKEYGKCLRT  HCCSGKSTES SIGSGKTS GS RTPGRYSTGS QSRIRRMWND TVRKQSESSF ITGDINSSAS  LNREPYRETS MGKLNIAVQ IGASEQCQGY KCHGYSTTEW</p> <p>atgagaagtc ataccataac aatgacgaca acttcagtcg 9cagctggcc ttactcctcc A  cacagaatgc gctttataac caatcatagc gaccaaccgc cacaaaactt ctccagcaaca  ccaaatgtta ctacctgtcc catggatgaa aaattgctat ctactgtgtt aaccacatcc  tactctgtta ttttcatcgt gggactgggtt gggaacataa tcgccctcta tgtatttctg  ggtattcacc gtaaaagaaa ttccattcaa attattctac ttaacgtagc cattgcagac  ctctactca tcttctgctt cctttccga ataattgtat atattaacca aaacaagtgg  acactaggtg tgattctgtg caagggtgtg ggaacactgt tttatatgaa catgtacatt  agcattattt tgcttggatt catcagtttg gatcgctata taaaaattaa tcggtctata  cagcaacgga aggcaataac aaccaaaaca agtatttat tctgttgtat agtatggatg  cttgctcttg gtggattcct aactatgatt attttaacac ttaagaaagg aggcataat  tccacaatgt gtttccatta cagagataag cataacgcaa aaggagaagc catttttaac  ttcattcttg tggtaatgtt ctggctaatt ttcttactaa taatcccttc atataatag  attgggaaga atctattgag gatttctaaa aggaggtcaa aatttcctaa tctcggtaaa  tatgccacta cagctcgtaa ctctttatt gtacttatca tttttactat atgttttgtt  ccctatcatg cctttcgatt catctacatt tcttcacagc taaatgtatc atcttgctac  tggaagaaga ttgttcacaa aaccaatgag atcatgctgg ttctctcatc ttccaatagt  tgcttagatc cagtcatagt tttctctgat tccagtaaca ttcgcaaaat aatgtgcaa  cttcttttta gacgatttca agtggaacca agtaggagtg aaagcacttc agaatttaa  ccaggatact ccctgcatga tacatctgtg gcagtgaaaa tacagtctag ttctaaaagt  acttga</p>	Homo sapiens
414	25359	G Protein- Coupled	NP_005291.1	<p>MRSHITMTT TSVSSWPYSS HRMRFITNHS DQPPQNFSA PNVTTCPMDE KILSTVLTTTS P  YSVIFIVGLV GNIIALYVFL GIHRKRNSIQ IYLLNVAIAD LLLIFCLPFR IMYHINQNKW</p>	Homo sapiens

Receptor GPR34	30698	G Protein- Coupled Receptor Ls30698	AX068267	<p>           TLGVILCKV GTLFYNNMYI SIILLGFISL DRYIKINRSI QQRKAITTKQ SIYVCCIVWM            LALGGFLTMI ILTLKKGHN STMCIFYRDK HNAKGEAIFN FILVWFLLI FLIIILSYIK            IGKLLLRISK RRSKFPNSGK YATTARNSFI VLIIFTICFV PYHAFRFIYI SSQINVSSCY            WKEIVHKTNE IMLVLSSFNS CLDPVMYFLM SSNIRKIMCQ LLFRRFOGEP SRSESTSEFK            PGYSLHDTSV AVKIQSSSKS T         </p>	<p>           gttctcagat cggcttctcg caacaggcag tcaattctca ctgggcccct tggactccca A            tttaaaaaat ggagaagaca gatcacagcc actgaccagg gaccgtggga ggtgccacgt            gatggtgagg catcatgcta gggagctgag ctctgacctt cctgtgggtt gattctccac            ctctgggctg ctagatctac ttcttgtagt cctggaagat cctcatgtat gaaaaatgaag            tcccaggcaa ccatgatttg ctgcttagtg ttctttctgt ccacagaatg ttcccactat            agatccaaga ttacacctaa aagctatagt gaagtggcca accacatcct cgacacagca            gccatttcaa actgggcttt cattcccaac aaaaatgcca cctcggtatt gttgcagtca            gtgaatttgt ttgccagaca actccacatc cacaataatt ctgagaacat tgtgaatgaa            ctcttcattc agacaaaagg gtttcacatc accataata cctcagagaa aagcctcaat            ttctccatga gcatgaacaa taccacagaa gatattctag gaatggtaca gattccccagg            caagagctaa ggaagctgtg gccaaatgca tcccaagcca ttagcatagc ttcccaacc            ttgggggcta tctgagaga agccacttg caaatgtga gtctcccg acaggtaaat            ggtctggtgc tatcagtggt tttaaccagaa aggttgcaag aaatcatact caccttcgaa            aagatcaata aaacccgcaa tggcagagcc cagtgtgttg gctggcactc caagaaaagg            agatgggatg agaaagctg ccaaatgatg ttggatatca ggaacgaagt gaaatgccgc            tgtaactaca ccagtgtggt gatgtctttt tccattctca gtctctccaa atcgatgacc            gacaaagtct tggactacat cactgcatt cctcagcg tctcaatcct aagcttggtt            ctttgctga tcatgaaag cacagtgtg tcccggttg ttgtgacgga gatatacat            atgctgcacg tgtgcatcgt gaatatagca gtgtcccttc tgactgcaa tgtgtggtt            atcataggct ctacatttaa cattaaggcc caggactaca acatgtgtg tgcagtga            tttttcagcc acttttcta cctctctctg tttttctgga gtctcttcaa agcattgctc            atcatttatg gaatatgtgt catttccgt aggatgatga agtcccgaat gatggtcatt            ggctttgcca ttggctatgg gtgcccattg atcattgctg tcaactacag tgcatacaca            gagccagaga acggctacat gagacctgag gctgttggc ttaactggga caataccaaa            gcccttttag catttgccat ccggcgctt cctattgttg ctgtaaatct gatgtggtt            ttggtgttg ctgtcaacac tcagaggccc tctattggca gtcccaagtc tcaggatgtg            gtcaataatta tgaggatcag caaaaatgt gccatcctca ctccactgt gggactgacc            tggggttttg gaatagccac tctcatagaa ggcacttctt tgacgttcca tataattttt            gectgtctca atgttttcca ggttttttct atctgtctgt ttggaacctat tatggatcac            aagataagag atgttttgag gatgaggatg tcttcaactga aggggaaatc gaggcagct            gagaatgcat cactaggccc aaccaatgga tctaaatgaa tgaatcgtca aggatgaaat            gctgccccat ttctcatgga tgtcctgaga ccaagagggg agatccagga gaaagagcc            atggaagaca ggctggagt aggaggaatg gtcatgcttc ctgggaagac ttctcttct            tgtcaggagt gactcccaag ctcttggtcg gccgaagaaa aactgaggat aacatttgct            gactgggctt taaggagcat gatttatgga cccctaaccc taccgtgccc ctgcaagagg            ctggcttctt ggtcaatctt gactagatta agagtcaatc tgcaagccat tttatggtct         </p>	<p>           Homo sapiens         </p>
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416	30698	G Protein- Coupled Receptor Ls30698	CAC27252.1	<p>ccctggccag ctggggggctg tagggccctg ctgggcttg tggtctttca ctctgaggc</p> <p>ctgctctgtg gctccatagc tcagtcctcc atcactctgc gtggatcctg ggtactttgg</p> <p>acagtggagg ttcatcccaa ttttaggggt aggggtgggg gtgggagtg ggtgtgggt</p> <p>tgccaggagg aagaatgagt ctactttgga gacaattaa gtatgggtac tttcctaag</p> <p>atagggaacg gaagaaaagc aagagaactg ttaataatgc tgattatttt agtctatttt</p> <p>agaccttgag taaactaatt tagcttctag gatccaagt tccttatttg tgaacacagga</p> <p>aaaaaaaatt cttgtaggta ttactgtttg tgtgtttgag ttactgcac atgtttgtgt</p> <p>ttgtgtatat gtgtctttta aaaatactat atataaagaa gattctgggt gttatttttag</p> <p>acataaacga atatatgtac ctttcac</p> <p>MMKSOATMI CCLVFLSTE CSHYRSKIHL KSYSEVANHI LDTAASINWA FIPKNASSD P</p> <p>LLQSVNLFAR QLHNNSEN IVNELFIQTK GFHINHNTSE KSLNFMSMN NTTEDILGMV</p> <p>QIPRQELRKL WPNASQAISI AFPTLGAILR EAHLQNVSLP RQVNGLVLSV VLPRLQEI</p> <p>LTFEKINKTR NARAQCVGWH SKRRWDEKA COMMLDIRNE VKRCNYTSV VMSFSILMSS</p> <p>KSMTDKVLDY ITCIGLSVSI LSLVLCIIIE ATVWSRVVVT EISYMRHVC IUNIIVSLT</p> <p>NWFIIGSHF NIKAQDYNMC VAVTFESHFF YLSLFFWMLF KALLIIYGIL VIFRRMKS</p> <p>MMVIGFAIGY GCPLIIAVTT VAITEPENGY MRPEACWLNW DNTKALLAFA IPAFVIVAVN</p> <p>LIVLVAVN TQRPISGSK SQDWIIMRI SKNVAILTPL LGLTWGFGLA TLIETSLTF</p> <p>HIIFALLNAF QGFFILLFGT IMDHKIRDAL RMRMSSLKKG SRAENASLG PTNGSKLMNR</p>	Homo sapiens
417	30875	G Protein- Coupled Receptor GPR87/GPR95	NM_023915	<p>QG</p> <p>ggcacgaggg tttcgttttc atgctttacc agaaaaatcca ctccctggcc gacctagtt A</p> <p>tcaaaagctta ttcttaatta gagacaagaa acctgtttca acttgaagac accgtatgag</p> <p>gtgaatggac agccagccac cacaatgaaa gaaatcaaac caggataaac ctatgctgaa</p> <p>cccacgcctc aatcgtcccc aagtgtttcc tgacacgcat cttgtcttac agtgcacac</p> <p>aactgaagaa tgggggttcaa cttgacgctt gcaaaattac caataaacga gctgcacggc</p> <p>caagagagtc acaattcagg caacaggagc gacggggccag gaaagaacac cacccttcac</p> <p>aatgaatttg acacaattgt cttgccggtg ctttatctca ttatatgtgt ggcaagcacc</p> <p>ttgctgaatg gtttagcagt gtggtatctc ttccacatta ggaataaaac cagcttcata</p> <p>ttctatctca aaaacatagt ggttcagac ggtcataatga cgtgacatt tccatttcga</p> <p>atagtcctatg atgcaggatt tggaccttgg tacttcaagt ttattctctg cagataacac</p> <p>tcagttttgt tttatgcaa catgtatact tccatcgtgt tccttgggt gataagcatt</p> <p>gacgctatc tgaagggtgt caagccattt ggggactctc ggatgtacag cataaccttc</p> <p>acgaaggttt tatctgtttg tgtttgggtg atcatggctg ttttgtctt gccaaacatc</p> <p>atcctgacaa atggtcagcc aacagaggac aatatccatg actgctcaa acttaaaagt</p> <p>cctttggggg tcaaatggca taccgagtc acctatgtga acagtctgt gtttgtggcc</p> <p>gtgctggtga ttctgatcg atgttacata gccatatcca ggtacatcca caaatccagc</p> <p>aggaattca taagtcatc aagccgaaag tatcacttgt gcagaatcc tttactttt</p> <p>gtggtgtgt tttttacctg ctttctacca tatcacttgt gcagaatcc tttactttt</p> <p>agtcaactag acaggctttt agatgaatct gcacaaaaa tccatatata ctgcaaaagaa</p> <p>attacacttt tcttgtctgc gtgtaattgt tgcctggatc caataattta ctttttcattg</p> <p>tgtagggtcat tttcaagaag gctgttcaaa aaatcaataa tcagaaccag gagtgaagc</p> <p>atcagatcac tgcaaaagtgt gagaagatcg gaagtctgca tatattatga ttacactgat</p>	Homo sapiens

418	30875	G Protein-Coupled Receptor GPR87/GPR95	NP_076404.1	gtgtaggcct tttattgttt gttggaatcg atatgtacaa agtgtaaata aatgtttctt ttcattatcc ttaaaaaaaa aa GLAVWIFFHI RNKTSFIYFL KNIVVADLIM TLTFPFRIVH DAGFGPWYK FILCRYTSVL FYANMYTSIV FLGLISIDRY LKVKPFGDS RMYSTFTKV LSVCVWVINA VLSLPNIILT NGOPTEDNIH DCSKLKSPLG VKWHTAVTVV NSCLFVAVLV ILIGCYAIS RYIHKSSRQF ISQSSRRKRKH NQSIIRVVAV FFTCLFPYHL CRIPFTFSLH DRLLDESAQK ILYYCKEITL FLSACNVCLD PIIFYFMCRS FSRRLFKKSN IRTRESIRS LQSVRRSEVR IYYDYTDV ggccttatct ttccagtcgt ccagctgctt cgtgccaccc cagcccgagg tgcactgacc A atgagcctca actcctccct cagctgcagg aaggagctga gtaatctcac tgaggaggag ggtggcgaag ggggcgtcat cctcaccag ttcattgcga caccattttt gtctgcctgg gaaacctggt cagctgggtc acctgtaca agaagtccta cctcctcacc ctcagcaaca agttcgtctt cagcctgact ctgtccaaact tcttgcctgc cgtgttggtg ctgcccttttg tggtagcagg ctccatccgc agggaaatgga tctttggtgt agtgtgggtg aacttctctg cctcctcta cctgctgctc agctctgcca gcatgctaac cctcgggggtc attgccatcg accgtacta tgcgtgctctg taccctatgg tgtaacctat gaagatcaca gggaaccggg ctgtgatggc acttgtctac atctggcttc actcgtctat cggctgcctg ccacctgt tgggtgggtc atcctggag tttgacagat tcaaatggat gttgtgtggct gcttggcacc gggagcctgg ctacacggcc tcttggcaga tctgtgtgct cctcttcccc ttcttggtca tgcgtgtgtg ctatggcttc atcttccgcg tggccagggt caaggcacgc aaggtgcact gtggcacagt cgtcatcgtg gaggaggatg ctacagaggac cgggaggaaag aactccagca cctccacctc ctcttcaggc agcaggaggga atgcctttca ggtgtgtggtc tactcggcca accagtgcaa agccctcctc accatcctgg tggctcctcg tgccttcctg gtcacctggg gccctacat ggttgtctac gccctcaggg cctctgggg gaaaagctcc gtctccccga gccctggagac ttggggccaca tggctgtcct ttgccagcgc tgtctgccac ccccgatct atggactctg gaacaagaca gttcgcgaaag aactactggg catgtgcttt ggggaccggt attatcgga accatttgtg caacgacaga ggacttccag gctcttcagc atttccaaca ggatcacaga cctgggcctg tccccacacc tcaactgcgt catggcagggt ggacagcccc tggggcacag cagcagcacg ggggacactg gcttcagctg ctccagggac tcaggtaacc tgcgtgcttt ataaacctct cactgtcgc gtttccctg tgttgcgttt cccccgctc gcgtttcccc tgtgcaggct caagagctgg cggaggggca ttccccacgg	Homo sapiens
419	31568	G Protein-Coupled Receptor RE2	NM_007369	tg mslnsslsr KELSNTLEE GEGGVIIIT FIAIIVITF VCLGNLVIV TLXKSYLLT P LSNKFVFSLT LSNFLLSVLV LPFVVTSSIR REWIFGVVWC NFSALLYLLI SSASMLTLGV IAIDRYAVLV YPMVYPMKIT GNRVAMALV IWLHSLIGCL PPLFGWSSVE FDEFKMCVA AWHREPGYTA FWQIWALFIP FLVMLVCYGF IFRVARVIGK PVHCGTVIV EEDAQRTRK NSSTSTSSG SRNFAQGVV YSANQCKALI TILVVLGAFM VTWGPYMWI ASEALWGKSS VSPSLETWAT WLSFASAVCH PLIYGLWNKT VRKELIGMCF GDRYYREPFV QRQRTSRLFS ISNRITDLGL SPHLTALMAG GQPLGHSSST GDTGFSCSQD SGNLRL atggacacct cccggctcgg tgtgtcctg tcttgcctg tgcgtgca gctggcgacc A gggggcagct ctccaggtc tgggtgtgtg ctgagggggt gccccacaca ctgtcattgc	Homo sapiens
420	31568	G Protein-Coupled Receptor RE2	NP_031395.1		Homo sapiens
421	36534	G Protein-Coupled	NM_003667		Homo sapiens

Receptor  
GPR49

gagcccgacg gcaggatggt gctcagggtg gactgctccg acctgggggt ctoggagctg  
ccttccaacc tcagcgtctt cacctcctac cttagacctca gtatgaacaa catcagtcag  
ctgctcccg atccctgcc cagctccgc ttcctggagg agttacgtct tgcgggaaac  
gctctgacat acattcccaa gggagcattc actggcctt acagtcttaa agttcttatg  
ctgcagaata atcagctaag acagtaacc acagaagctc tgcagaattt gcgaagcctt  
caatccctgc gctgggatgc taaccacatc agctatgtgc cccaagctg tttcagtggc  
ctgcattccc tgaggacct gtggctggat gacaatgcgt taacagaaat ccccgctcag  
gcttttagaa gtttatggc attgcaagcc atgacctgg cctgaacaa aataccac  
ataccagact atgccttgg aaacctctc agcttggtag tttacatct ccataaact  
agaatccact cctgggaaa gaaatgctt gatgggtcc acagcctaga gacttttagat  
ttaaattaca ataacctga tgaattcccc actgcaatta ggacactctc caaccttaaa  
gaactaggat ttcatagcaa caatatcagg tcgataacct agaaagcatt tgtagggcaac  
ccttctctta ttacaataca tttctatgac aatccccatc aatttgttg gagatctgct  
tttcaacatt tacctgaact aagaacactg actctgaatg gtgacctaca aataactgaa  
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gggttacatg gtttaactca cttaaaatta acaggaaatc atgacctaca gagcttgata  
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agaattggag tgtggacct agcagttctg gcacttactt gtaatgcttt ggtgacttca  
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ctgaaagttaa tcattttgct ctgtgcccc ctggccttga ccatggccc agttccccctg  
ctgggtggca gcaagtatgg cgctccccct ctctgctgc ctttgcctt tggggagccc  
agcaccatgg gctacatggt cgctctcatc ttgtcgaatt cctttgtct cctcatgatg  
accattgctt acaccaagct ctactgcaat ttggacaagg gagacctgga gaatatattg  
gactgtctta tggtaaaaca cattgcccc ttgctcttca ccaactgcat cctaaactgc  
cctgtggctt tctgtcctt ctctcttcta ataaacctta cattatcag tctgaagta  
attaagtta tcttctggt ggtagtccca ctctctgcat gtctcaatcc ccttctctac  
atcttgttca atctcactt taaggagat ctggtgagcc tgagaaagca aacctacgtc  
tgacaagat caaacaccc aagcttgatg tcaattact ctgatgatgt cgaaaaacag

422	36534	G Protein- Coupled Receptor GPR49	NP_003658.1	<p>tctgtgact caactcaagc cttggttaacc ttaccagct ccagcatcac ttatgacctg  cctcccagtt ccgtgccatc accagcttat ccagtgactg agagctgcca tctttcctct  gtggcatttg tcccatgtct ctaa</p> <p>PSNLSVFTSY LDLSMNNISQ LLPNPPLSLR FLEELRLAGN ALTYIPKGF TGLYSLKVLV  LQNNQLRHVP TEALQNLRSI QSLRLDANHI SYVPPSCFSG LHSRLHMLD DNALTEIPVQ  AFRSLALQA MTLALNKIHH IPDYAFGNLS SLVVLHLHNN RIHSLGKKCF DGLHSLETLD  LNNYLDEFP TAIRTLNLK ELGFHSNNIR SIPEKAFVGN PSLLTIHFYD NPIQFVGRSA  FQHLPELRTL TLNGASQITE FPDLTGTANL ESLLTGAQI SSLPQTVCNQ LPNLQVLDSL  YNLLEDLPF SVCKLQKID LRHNEIYEIK VDTFQQLLSL RSLNLAWNKI AIHPNAFST  LPSLIKDLIS SNLLSEFPII GLHGLTHLKL TGNHALQSLI SENFPELKV IEMPYAYQCC  AFGVCENAYK ISNQWNKGDN SSMDDLHKD AGMFOAQDER DLEDFLLDFE EDLKAHLSVQ  CSPSPGFPKP CEHLLDGWL I RIGVWTIAVL ALTCNALVTS TVFRSPLYIS PIKLLIGVIA  AVNMLTGVS AVLAGVDAFT FGSFARHGAW WENGVGCHVI GFLSIFASES SVFLLTLAAL  ERGSVKYSA KFETKAPFS LKVIILCAL LALTMAAVPL LGGSKYGASP LCLPLPFGEF  STMGMVALI LLNSLCFLMM TIAYTKLYCN LDKGDLENIW DCSMKHIAL LFTNCILNC  PVAFLSFSL INLTFSISPEV IKFILLVVVP LPACLNPLLY ILFNPHEKED LVSLRKQTYV  WTRSKHPSLM SINSDDVEKQ SCDSTQALVT FTSSSITYDL PPSSVPSPAY PVTESCHLSS  VAFVPCL</p>	Homo sapiens
423	37498	Xenotropic and Polytropic Retrovirus Receptor (XPR1)	NM_004736	<p>actcagagatg gcggcggggc tgctctgaag agacctcggc ggcgcgaggag gagagagaaa A  gcgcagcgcc gcgcgcgcgc ggggcccatg tggggaggag tcggagtcgc tgttgcgcgc  gcgcctgta gcgcctggac ccagctggga gcgaggggga caacgcagga tgaagtctgc  cgagcacctc tcgcgcgaca tcactccgca gcgagggaga caatacatcc agtatgaggc  tttcaaggat atgctgtatt cagctcagga ccaggcacct tctgtggaag ttacagatga  ggacacagta aagaggtatt ttgccaaagt tgaagagaag tttttccaaa cctgtgaaaa  agaactggcc aaatcaaca cattttattc agagaagctc gcagaggctc agcgaggtt  tgctacactt cagaatgagc ttcagtcac actggatgca cagaaagaaa gcactgggtg  tactacgctg cgacaacgca gaaagccagt ctccacttg tcccatgagg aacgtgtcca  acatagaaat attaaagacc ttaaaactggc cttcagtgag ttctaccca gtctaactct  gctgcagaac taccagaatc tgaattttac agggtttcga aaaatccctga aaagcatga  caagatcctg gaaacatctc gtggagcaga ttggcgagtg gctcacgtag aggtggcccc  attttataca tgcaagaaaa tcaaccagct tatctctgaa actgaggctg tagtgaccaa  tgaacttgaa gatggtgaca gacaaaaggc tatgagcgt ttacgtgtcc ccccttggg  agctgctcag cctgcaccag catggactac ttttagagtt ggcctatttt gtggaatatt  cattgtactg aatattaccc ttgtgcttc cgctgtattt aaacttgaaa cagatagaag  tatatggccc ttgataagaa tctatcgggg tggctttctt ctgattgaat tccctttct  actgggcatc aacacgtatg gtggagaca ggctggagta aaccatgtac tcatcttga  acttaatcgg agaagcaatt tgtctcatca acatctcttt gagattgctg gattcctcgg  gatattgtgg tgcctgagcc tcttgagcat ctctcttctt ccaattagtg tcatccccc  atatgtgat ccacttgccc tttatggatt tatggttttc ttccttatca accccaccaa  aactttctac tataaatccc ggtttttgct gcttaaaactg ctgtttcagc tatttacagc</p>	Homo sapiens

Homo  
sapiens

ccccttccat aaggtaggct ttgctgatt ctggttgccg gatcagctga acagcctgtc  
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 ERVQHRNIKD LKLAFFSEFY SLILLQNYQN INFTGFRKIL KKHDKILETS RGADWRVAHV  
 EVAPFYTCCK INQLISETEA VVTNELEDGD RQKAMKRLRV PPLGAAQAP AWTFERVGLF  
 CGIFIVLNIT LVLAAVFKLE TDRSIWPLIR IYRGFLLIE FLFLGINTY GWRQAGWNHV  
 LIFELNPRSN LSHQHLFEIA GFLGILWCLS LLACFFAPIS VIPTYVYPLA LYGFVFFLI  
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 LKWDESKGLL PNNSESGIC HKYTYGVRAI VQCI PAWLRF IQCLRRYRD KRAPPHLVNA  
 GKYSTTFMV AFAALYSTHK ERGHSMTVMF FYLMIVFYII SSCYTLIWDL KMDWGLFDKN  
 AGENTFLREE IVYPQKAYY CAIIEVDILR FAWTIQISIT STLLPHSGD IATVFPAPLE  
 VFRFVWNFF RLENEHLNCC GEFRVARDIS VAPLNADDQT LLEQMDQDD GVRNRQKNRS  
 WKYNQISISL RPRLASQSKA RDTKVLIET DDEANT

P



425	40881	Lung Seven Transmembran e Receptor 2 (L1USTR2)	AX073578	<p>agagatggca gtgagcgaga ggagggggct cggccgcggg agcccccg agtgggggca A</p> <p>gcggctactt ctggtgctgc tgttgggtgg ctgctccggg cgcattccac ggctggcgct sapiens</p> <p>gacgggggag aagcgagcgg acatccagct gaacagcttc ggtttctaca ccaatggctc</p> <p>tctggaggtg gattgagcg tccctgcggct gggcctccgg gttgcagaag agaagtcctt</p> <p>gctgggtggg ttcagtctca gccgggttcg gttcggcaga gttcgtctct attcaacccg</p> <p>ggatttcag gactgccctc tccagaaaa cagtagcagt ttcctggctc tgttctcat</p> <p>caacacaaag gatctgcagg tccaggtgcg gaagtatgga gacgagaaga cgttggttat</p> <p>ctttcccggg ctctcccg aagcaccctc caaacagggt cccccgaag cacaggccac</p> <p>agtccccgc aaggtggatg gcggaggagc ctctgcagcc agcaagccca agtcaacacc</p> <p>cgcagtatt cagggtccta gtgggaagga caagacctg gtgttgggct tgagccacct</p> <p>caacaactcc tacaacttca gttccacgt ggtgatcggc tctcaggcg aagaaggcca</p> <p>gtacagcctg aactccaca actgcaaca ttcagtgcga ggaaggagc atccattcga</p> <p>catcaggtg atgattccgg agaagaacc cgtatgcttc ctgtcggcag cggagatgcc</p> <p>ctttttcaag ctctacatgg tcatgtccg ctgtcttctg gccgtggca tcttctgggt</p> <p>gtccatcctc tgcaggaaca cgtacagcgt cttaagatc cactggctca tggcgggcctt</p> <p>ggccttcacc aagagcatct ctctcctctt ccacagcatc aactactact tcatcaacag</p> <p>ccaggggcac cccatcgaa gcttgccgt catgtactac atcgacacc tgcgaagggt</p> <p>cgcctctctc ttcacacca tgcctctgat tggctcaggc tgggcttca tcaagtacgt</p> <p>cctgtcggat aaggagaaga aggtctttgg gatcgtgatc cccatgcagg tccctggcga</p> <p>cgtggcctac atcatcatc agtccccga agtccccga ggaaggcgc agcactacg tgcgtggaa</p> <p>ggagattttg ttcctgggtg acctcatctg ctgtgtgtgc atcctgttc cctgtactg</p> <p>gtccatccgg catctccagg atgcgtctg caccagcggg aaggtggcag tgaacctggc</p> <p>caagctgaag ctgttccggc attactatgt catggtctat tgcactgctc acttaccgg</p> <p>catcatcgcc atcctgctg agtggtctgt gccctttcag tggcagtggtc tgtaccagct</p> <p>cttgggtgag ggctccacc tggccttctt cgtgctcag ggtacaagt tccagccac</p> <p>agggaacaac ccgtacctgc agtgcacca ggagagcag gaggatgtt agatggagca</p> <p>agtaatgacg gactctgggt tccgggaagg cctctccaa gtcaacaaa cagccagcgg</p> <p>gcgggaactg ttatgatcac ctccacatct cagaccaaa ggtcgtctc cccagcatt</p> <p>tctcactct gcccttctc cacagcgtat gtggggaggt ggaagggtc catgtggacc</p> <p>aggcggccag ctccccgga ccccggttc cggacaagcc catttgaag aagagtcctt</p> <p>tcctccccc aatatattgg cagccctgtc ctaccocgg gaccacccct ccttccagc</p> <p>tatgtgtaca ataagacca atctgtttg ct</p>	Homo sapiens
426	40881	Lung Seven Transmembran e Receptor 2 (L1USTR2)	CAC28410.1	<p>MAVSRRGLG RGSPAENGQR LLLVLLGGC SGRIHRLALT GEKRADIQLN SFGFTNGSL P</p> <p>EVELSVRLG LREAEEKSL VGFSLSRVS GRVRSYSTRD FQDCPLQNS SSFLVFLIN</p> <p>TKDLQVVRK YGEQKTLFIF PGLLPEAPSK PGLPKPQATV PRKVDGGTS AASKPKSTPA</p> <p>VIQGPSGDK DLVGLSHLN NSYNFSFHV IGSQAEQY SLNFHCNNS VPSKEHPFDI</p> <p>TVMIREKNPD GFLSAAEMPL FKLYMVSAC FLAAGIFWVS ILCRNTYSVF KIHLMALA</p> <p>FTKSISLLEH SINYFINSQ GHPIEGLVM YYIAHLKGA LLFITIALIG SGWAFIKYVL</p> <p>SDKEKVFGEI VIPMQVLAV AYIIIESREE GASDYVLWKE ILFLVDLIC GAILFPVWVS</p> <p>IRHLQDASGT DGKVAVNIK LKLFRRHYVM VICVYFTRI IAILQVAVP FQWQLYQLL</p> <p>VEGSTLAFFV LTGYKEQPTG NNPLYQLPQE DEEDVQMEQV MTDGREGI SKVNKTASGR</p>	Homo sapiens

427	42697	G Protein- Coupled Receptor GPR64	NM_005756	ELL	Homo sapiens
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				gttttactga cgttcaagat attcctgtc atcattgtc ttcatgtcgt ttctgttaaca	
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				gtcagtttg cccctctct caatgaggtt gaaacacaa gcctcaatga tgttacttta	
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VCLADHPRGP	PFSSQSIPV	VPRATVLSQV	PKATSFREPP	DYSPVTHNVP	SPIGEIQPLS
PQPSAPIASS	PAIDMPQOSE	TISSPMQTH	VSGTPPPVKA	SFSSPTVSAP	ANVNTTSAPP
VQTDIVANTSS	ISDLENQVLQ	MEKALSGLSL	EPNLAGEMIN	QVSRLHSPPL	DMLAPLAQRL
LKLVDDIGLQ	LNFSNNTISL	TSPSLALAVI	RVNASSENTT	TFVAQDPPANL	QVLSLETOAPE
NNSIGTITLPS	MLMNLPAHD	MELASRVQFN	FFETPALFQD	PSLENLSLIS	YVSISSVANL
TVRNLSTNRVT	VTLKHINPSQ	DELTVRQVFW	DLGRNGRRGG	WSDNGCSVKD	RRLNETICTC
SHLTSEFVLL	DLRSRVSPLA	QMMALTFITY	IGCGLSSIFL	SVTLVTYIAF	EKIRRDYPSK
ILILQCAALL	LNLNVELLDS	WIALYKMQGL	CISVAVFLHY	FLVLSFTWMG	LEAFHMYLAL
VKVVENTYIRK	YILKFCIVGW	GVPAVVVTII	LTISPNDYGL	GSYKFEFNGS	PDDFCWINNN
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430	45937	KIAA1624	AAK57695	Protein	<p> tggagtcctg tctgacaaca tctggggtga tggaaagtat gaagaagtc aagaagggtga  ccaacggctc cgtggagccc cagggcgagt gggaaggcgc cgtgtgacag agccgaccct  gagatggca ctgtccaag aaactgttaa cttattcata gtcctattgg acagcaggag  cagtcctac agtgaactat tggcaccacc gacagtga caagggcaca tggctggagc  acagtccgc ggaacactga tttgtactc tctttatg aaacgatctg tggctgtta  gaggcagctg gatcctcttt caggcgggaa tgggagggcg ggcacaggga ggagagagag  aagagaaaaa gaagaattca tttttaattt aggtttcttt tttcttctt catttcggag  ctctaaagtg tatgcagttg tgaccccatg tgtggggaag ttagcaagg acggctggg  gagggggaag gaggtgcga ggtgtctgct gcatgtctt ggaatgtct actgaggacc  ctgggactta agaagaagg cggggagagt gccattgcct gttgggaga caaaatgaa  cgaacaacag tgactttgga aagcaaatgc aaacccagt ttaggatgta gcacctgccc  caggattcct gccctggct ttgcccaga ccttattcc agatgctgag agtgaccagg  acagcagctc ctgaggccca gtggtcttct. ttccaacagg aaaagaagc tgtgatgtcg  ctgtcaggat catgccctgt gccacagcac aggtggtggg aggtggttt ctgactgaga  tgttgcctga tggatgga aaaaatgtatt ttaagtcca aaagcatta tctgtggcg  ttgcctggac atccactccc tgacagccca gacgacact gctggcctc ccttcagtct  tgtgctttg ttgtgtttga tcagaatttt gggggaatg gaaagtttt ctcaaggagc  agctggggc agaataagta gtatttaagc aaatacttaa gtccaagcaa atcatcccca  ttaaaaagct tttcctgtg gctagtagga aaaaaaaa aaaaaa  MAALAPVGSF ASRGPRLAAG LRILPMLGLL QLLAEPGLGR VHHLAKDDV RHKVHLNTFG P  FFKDGVMVN VSSLSLNEPE DKDVTIGFSL DRTKNDGFSS YLDEDVNYCI LKKQSVSVTL  LILDISRSEV RVKSPPEAGT QLPKILFSDR EKVLGQSQEP NVNPASAGNQ TQKTQDGGKS  KRSTVDSKAM GEKSFSVHNN GGAVSFQFFF NISTDDQEG L VSLYFHKCLG KELPSDKFTF  SLDIEITEKN PDSYLSAGEI PLPKLYISMA FFFFLSGTIW IHILKRNRND VFKIHLMAA  LPFTKSLSLV FHAIDYHYS SQGFPIEGWA VVYVITHLLK GALLFITIAL IGTGWAFIKH  ILSDKDKKIF MIVIPLOVLA NVAYIIEST EEGTEYGLW KDSLFLVDLL CCGAILFPVW  WSIRHLQEAS ATDGKAANL AKLKLFRHY VLIVCYIYFT RIIAFLKLA VPFQWKWLYQ  LIDETATLVF FVLTYKFRP ASDNPYLQLS QEEEDLEMES VVTTSGVMES MKKVKKVTNG  SVEPQGEWEG AV </p>	Homo sapiens
431	50847	Neurotensin Receptor type 2	NM_012344		<p> gagtgagagg gagggagcgc cggccgcggg agcgggatgg aaaccagcag cccgcggccc A  ccgcggccca gctccaaacc ggggctgagc ctggacgccc ggctggcgct ggacactcgc  ctctgggcca aggtgctgtt caccgcgtc tacgactca tctggcgct gggcgcgcg  ggcaatgccc tgctcgtgca cgtggtgctg aaggcgcggg cgggcgcgc gggcgcgctg  cgccaccacg tgctagcct ggcgtcgcg ggcctgtgct tctgtgctg cggcgctgccc  gtggagctct acagcttctg gtggttccac tacccttggt tcttcggcga cctgggctgc  cgcggtact actcgtgca cgagctgtgc gcctacgcca cgggtgctgag cgtggcaggc  ctgagcgccc agcgtgctt agcgtgtgc cagccctgc gtgccgcag cctgctgacg  ccacgcgga cccgtggct ggtggcgctc tctgtggcg cctcgctcg cctcgccctg  cccatggccg tcatcatgg gcagaagcac gaactcaga cggcgagcgg ggagccggag  ccgcctcgc gagtgtgac ggtgctggtg agccgaccc cgtcccaagt cttatccag  gtgaatgtgc tgggtctctt cgtgctcccc ttggcactaa ctgctttcct gaatgggggc </p>	Homo sapiens

432	50847	Neurotensin Receptor type 2	NP_036476.1	PSSNPGLSLD ARLGVDTRLW AKVLFTALYA LIWALGAAGN ALSVHVVLKA P METSSPRPPR RAGRAGRLRH HVLSIALAGL LLLLVGVPE LYSEVWFHYP WVFGLGCRG YFVHELCA Y ATVLSVAGLS AERCLAVCQP LRARSLTPR RTRWLVALSW AASLGALPM AVIMGQKHEL ETADGEPEPA SRVCTVLVSR TALQVFIQVN VLVSVFLPLA LTAFLNGTV SHLLALCSQV PSTSTPGSST PSRLELLSEE GLLSFIVWKK TFIQGGQVSL VRHKDVRIR SLQRSVQVLR AIVMYVICW LPYHARRIMY CYVEDDAWTD PLYNFYHYFY WTNITLFYVS SAVTPLLLYA VSSFRKFLF EAVSSLCGEH HPMKRLPPKP QSPTLMDTAS GFGDPPETRT	Homo sapiens
433	53440	G Protein- Coupled Receptor LS53440	AX107037	ctgagaggct gtatttcagt gcagcctgcc agacctcttc tggaggaga ctggacaaaag A ggggtcacac attccttcca taccgttgag cctctacctg cctggtgctg gtcacagttc agcttcttca tgatggtgga tcccaatggc aatgaatcca gtgtacata ctctaccta ataggcctcc ctggtttaga agagctcag ttctggttgg ccttcccat gtgctccctc tacctattg ctgtgctagg taactgaca atcatctaca ttgtgaggac tgagcacagc ctgcatgagc ccatgtatat atttcttgc atgctttcag gcattgacat cctcatctcc acctcatcca tgcccaaat gctggccatc ttctggttca attccactac catccagttt gatgcttgtc tgctacagat ttttgccatc cactccttat ctggcatgga atccacagt ctgctggcca tggcttttga ccgctatgt caccataat ggtgtggctg ctgtggtgag gggggtgca gtacttacgt tgcctcgtgt cacttccctgt ctccatcaag cagctgccct tctgcccgc caatatcctt ctgatggcac ccttccctgt ccaagatgac tccgcatggt gcctggactc acttctcatc tcccattcct actgcctaca cgtcatcctc cgtccattg cctgtgatga tatccgggtc aatgtcgtct atggccttat cgtcatcctc tccgcatggt gctgtgactc acttctcatc tccctctcat atctgcttat tcttaagact gtgtgggtg tgacacgtga agccaggcc aaggcattg gcacttgcgt ctctcatgtg tgtgtgtgt tcatattcta tgtaccttc attggattgt ccatggtgca tccgttttagc aagggcggtg actctccgt gccgtcatc ttggccaata tctatctgct gggtccctct gtgctcaacc caattgtcta tggagtgaag acaaaggaga ttgcacagc cctcttoga ctttccatg tggccacaca cgcttcagag ccctaggtgt cagtgatcaa acttcttttc cattcagagt cctctgattc agattttaat	Homo sapiens

434	53440	G Protein- Coupled Receptor LS53440	CAC38935.1	gttaacattt tggaagacag tattcagaaa aaaaatttcc ttaataaaaa atacaactca gatccttcaa atatgaaact ggttgaggaa tctccatttt ttcaattata ttttcttctt tggtttcttg ctacataata ttattaatac cctgactagg ttgtggttgg aggtttatta cttttcattt taccatgcag tccaaaacta aactgcttct actgatggtt tacagcattc tgagataaga atggtacatc tagagaacat ttgcaaaagg cctaagcacg gcaaaaggaaa ataaacacag aatataataa atgagataa tctagcttaa aactataact tctcttccag aactcccaac cacattggat ctcaaaaaa tgctgtcttc aaaaagact ctacagagaa gaaataattt ttctcttggg cactagcact taaggggagg attggaagta aagccttgaa aagagtacat ttacctacgt taatgaaagt tgacacactg ttctgagagt ttccacagca tatggaccct gtttttccca ttttaatttc ttatcaacct ttttaattagg caaagatat attagtacct tcattgtagc catgggaaaa ttgatgttca gtggggatca gtgaattaaa tggggtcata caagtataa aattaaaaa aaaaagact tcatgcccac tctcatatga tgtggaagaa ctgttagaga gaccacagg gtagtgggtt agagatttcc agagtcttac attttctaga ggaggtattt aatttcttct cactcatcca gtgttgatt taggaatttc ctggcaacag aactcatggc tttaatccca ctagtatttg cttattgtcc tggccaatt gccaattacc tgtgtcttgg aagaagtgat ttctaggttc accattatgg aagattctta ttcagaaaat ctgcataggc cttatagcaa gttatttatt tttaaaagt ccataggtga ttctgatagg cagtgggtt agggagccac cagttatgat gggaaagtatg gaatggcagg tcttgaagat aacattggcc ttttgagtgt gactcgtagc tggaaagtga gggaaatctc aggaccatgc tttatttggg gcttttgca gtatggaaca gggactttga gaccaggaaa gcaatctgac ttaggcattg gaatcaggca tttttgcttc tgaggggcta ttaccaaggg ttaatagggt tcatcttcaa caggatatga caacagtgtt aaccaagaaa ctcaaatcac aaataactaa acatgtgac atatatgttg taagtctcat tttcttttc aatctcagg ttccttgata tggattccta taacatgctt tcatcccttt ttgtaaatga tateatatt ggaaatgcct atttaatact tgtatttgc tctggactgt aagcccatga gggcactgtt tattattgaa tgtcatctct gttcatcatt gactgctctt tgctcatcat tgaatcccc agcaaatgac ctagaacata atagtgccta tgcttgacac cggttatttt tcatcaaac tgattccttc tgtcctgaac acatagccag gcaattttcc agccttcttt gagtgggta ttattaatt ctggccatta ctccaatgt gagtggagat gacatgtgca atttctatac ctggctcata aaacctccc atgtgcagcc ttctatgttg acattaaatg tgacttggga agctatgtgt tacacagagt aaatcaccag aagcctggat ttctgaaaaa actgtgcaga gccaaccctc tgtcatttgc aactcccat tgtatttga cgaggcagtt ggataagtga aaaaataaagt actattgtgt caagaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaa aaaaaa	MMVDNNGNES SATYFILIGL PGLEEAQFWL APFLCSLYLI AVLGNLTIIY IVRTEHSIHE P PMYIFLCMLS GIDILISTSS MPKMLAIFWF NSTTIQFDAC LIQMFaiHSL SGMESTVILA MAFDYVAIC HPLRHATVLT LPRVTKIGVA AVVRGAALMA PLPVFIKQLP FCRSNILSHS YCLHQDVMKL ACDDIRNVV YGLIVIIISAI GLDSLLISFS YLLILKTVLG LTREAQAKAF GTCVSHVCAV FIFVVPFIGL SMVHRFSKRR DSPLPVILAN IYLLVPPVLN PIVYGVKTK IRQIRLRFH VATHASEP	Homo sapiens
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435	54053	Gaba (b) Receptor 2	NM_005458	atggtctccc gcgcgcctgc ggctgggcgc ctcatgcgcg gtggaactgg ctgcggctct ataaaatcgc atcattgcag cctgttctag gcggtgaatc ctgacgcaag ggcgaggaca aaaaagctga gcaaaagtgt attccgggct cgctgcctcc ccccgagct gagtacaaca ggcatctggg cggcaccagc aatgccatga gagagaatgg gagtacaacg tccgaaccac ctctacagca ttcttcaaca aaccttatca ggatcccttg accgtgggct atcttcaaaa gtgggggggca ctgcgaaggga atccgccttc tatgcctaca gtcagcatcc atcatgtgca ttctgcatcg gtgccgaagc cagttcactc aaccaagcca aagatcacag	cgcgagggtc tactgtact gggggcctcc tcaccaagga ccatcgagca atgacacgga ggccgaacca agtcctccca cggataagaa cagccattct acgttcagag ttgagatttc aggggaatga tctgttgtgc ggtacgagcc ggaagaatct ccaagcagat acaagcgtc tcctgcgcaa ggatccagga acgagacca ggaccattaa ctgtggccga caaaagacca tccctctgc tcaagaacccg tccttgaggg tctctgaaa acacgaccgc atgtgaaaat tgctgctgat cagtgagaa tcctggagca agggacttct ccgcactcaa tcctcggggc cgctgtctcc catcatcttc tcatcacct gagaacaaac gaaagaagat cctggagggc agacttgaaa	cgggcagcca gctgtgccg ccggccgccc ggtggccaag gatccgcaac gtgcgacaac cttgatggtg aggctggaat aaaataccct gaagttgctc gttctctgag agacaccgag tgtcgggac atcacggag aacatggag ttcttggtgg gagcaggtgc atggagggtc tcaggaaaaga ccagcaagt gacactggag gttcaactac cttcttcggg attactcaa cacactggag gacctcatc cctcaccatc gaatcagaag gatgctctcc gacctttgaa ttttggggcc gaagaagaag cgacctgtgt gtacagcatg ctgtgagaac catgttgttc cgacagcaag cgctgtctcc catcatcttc gagaacaaac tctaaacgt ctacagtcag gaggtcacca	ggcgggccgc ctctgtctgc ccagagagcc ggcgcggtgt tgcccccgc tgcaagcctt tctgtccatc ttcttttgc ggaccgtccc agtggaagcg ctgtgacacg tattcttctc ggaccgtccc agtggaagcg gtgcggaatg acctgactgg acgatccctg agtttgacc gtagtaata acacggaagc acattggcgt ctccacagca tcacagggta agacactgca cgctgggcag gatcatcctc aagttgtatt gcaggaggt acacctcag tgcggaagat tcctgaccag tgtcgagtc tatttctctt ccgtcaggac agacctggag accagaaat gctgtgac gctggcagcc cagcaggacg ccatctggct tagcttggtg gacctgggga taagttgtct tacctggga tgactcgga ttcctgaccc gggaccagcc tgacagacca ccagatgcag caacgcagaa ccacctcgt caccagtgtg aaaaccatcg tgacagtcga	accgcgcccc cggggcctgg catcatgggc gtccccgc cttccctcgac ctacgatgca cgtcacatcc tgcaaccacg atcagacaat ggaccgtccc agtggaagcg acctgactgg taccagtgtc gaatatggca taagttaaata caactcatcc ggatttcgag gagtggaagc acacggaagc acattggcgt gtatggagga cgctacagat tcacctacgt gttccaaagg gtcggaagat ctccctacct tgcttttctc atcatgaac tggtccttgat ctggattctc ctggattctc tggtcctcgt gacctgggga caacgtgggg caatgtgcag cctgggtattc caggcgattc caccagtgtg cctggcaatg ggacacacca	Homo sapiens	A
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436	54053	Gaba (b) Receptor 2	NP_005449.1	ctgtaa	gaaaagacca cctacattaa acagaaccac taccaagagc tcaatgacat cctcaacctg gaaaacttca ctgagagcac agatggagga aaggccattt taaaaatac cctcgatcaa aatccccagc tacagtggaa catacagag cctctctgaa cctcgataagaa gatataaact ctccagaaca caccagcgt cggtctgccc tccagctccc cctcctccac cacgcctacc tcccatccat cggagcgtg gagccagct gtgtcagccc ctgctcgagc cccaccgcca gccccgcca cagacatgtg ccaccctct tccgagtcac ggtctcgggc ctgtaa	Homosapiens
437	55728	ETL protein	NM_022159	ctgtaa	gaaaagacca cctacattaa acagaaccac taccaagagc tcaatgacat cctcaacctg gaaaacttca ctgagagcac agatggagga aaggccattt taaaaatac cctcgatcaa aatccccagc tacagtggaa catacagag cctctctgaa cctcgataagaa gatataaact ctccagaaca caccagcgt cggtctgccc tccagctccc cctcctccac cacgcctacc tcccatccat cggagcgtg gagccagct gtgtcagccc ctgctcgagc cccaccgcca gccccgcca cagacatgtg ccaccctct tccgagtcac ggtctcgggc ctgtaa	Homosapiens

Homo  
sapiens

P

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NP\_071442.1

ETL protein

55728

438

NM\_000740

Muscarinic  
acetylcholin  
e Receptor  
M3

56923

439

Homo  
sapiens

A

440	56923	Muscarinic acetylcholin e Receptor M3	NP_000731.1	GGHTVMQVVF IAFITGILAL VTIIGNILVI VSEKVNKQLK TNNYFLLSL ACADLIIGVI SMNLFTTYII MNRWALGNLA CDLWLAIIDYV ASNASVMNLL VISFDRYFSI TRPLTYRAKR TTKRAGVMIG LAWVISFVLW APAILFWQYF VGKRTVPPGE CFIQFLSEPT ITFGTAIAAF YMPVTIMTIL YWRIYKETEK RTKELAGLQA SGTEAETENF VHPTGSSRSC SSYELQQOSM KRSNRRKYGR CHFWFYTKSW KPSSEQMDQD HSSSDSWNNN DAAASLENSA SSDEEDIGSE TRAIYSIVLK LPGHSTILNS TKLPSSDNIQ VPEELGMVD LERKADKLQA QKSVDDGGSF PKSFSKLPQ LESAVDTAKT SDVNSSVGKS TATLPLSFKE ATLAKRFALK TRSQITKRKR MSLVKEKRAA QTLSAILLAF IITWTPYNIM VLNTFPCDSC IPKTFWNLGY WLCYINSTVN PVCYALCNKT FRTTFKMLLL CQCDKKKRRK QYQQRQSVI FHKRAPEQAL	SPDGTDDPL P	Homo sapiens
441	57180	Leukotriene B4 Receptor BLTR2	NM_019839	gaaactggcc ctggccctga accaaatacc tgaacccctc tgaacactcca taccctgacc A cccttgattt ggatataccc aggtagaaca actctctctc actgtctgtt gtgaggatac gctgtagccc actcataaag tacattctcc taataaatgc ttgtgactga tcacccctgcc agtctttttg ctgtggcaga ctatactttt ctcaagggtt cccaaggcct actgaaggga cttaacatac tcttaattggc ttctctctct ctgtttttac cttatgcct cacttctga gttaacctcc caaatacagg atcacctgta cccaaggcct tagctcaaga atacaggatc	taccctgacc A	Homo sapiens

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443	73584	Cadherin EGF LAG Seven- Pass G-Type Receptor 1 (CELSR1/Flam ingo)	NM_014246	AALLGLPGNG FVWVSLAGWR PARGRPLAAT LVHLALADG AVLLLTPLFV AFLTRQAWPL GOAGCKAVYY VCALSMYASV LTLGLLSLQR CLAVTRPFLA PRLRSPALAR RLLLA VWLAA LILAVPAAY RHLMRDVVCQ LCHPSPVHAA AHLSELTITA FVLPFGMLG CYSVTILARLR GARWGSGRHG ARVGRIVSAI VLAFLGLLWAP YHAVNLIQAV AALAPPEGAL AKLGGAGQAA RAGTTALAFF SSSVNPVLVY FTAGDLLPRA GPRFLTRLFE GSGEARGGGR SREGTMELRT TPQLKVVGQG RGNDDPGGM EKDGPEWDL atggcgccgc cgcgcgcgc cgtgtgccc cgtgtgctgc gtgtgctgctg tcctggccgc cgcgcgcgc A ctgcgcgcga tggggtctgc agcgccgcgc tgggagccgc gcgtaccgcgc cgggacccgc gccttcgcgc tccggccgcgc ctgtacctac cgggtgggcgc ccgcttgca cgcgcgcgcgc ccgcgggagc tgcgtgacgt gggccgcgat gggcggtggt caggacgtgc cgcgcgtctgc ggcgggggc gcccgctgcc gctgcaagtc cgttgggtgg ccgcgagtc ccgcgagcgc ctgagccgc gcccgggc gcgcagcac ctcccgct gcggagccgc tgcgcgcgc tgcggaaccg gtgcgcgcct ctgcggggc ctctgcttc ccgtcccg gcgtgctgcgc gccgcgagc attcggcct cgcagctcc cacccttac ccgcctgcgc ctgcgcgcgc gcccccaggc ccgcgtgcc cggccgtccc atctgctgc cgcgcgggcgc ctgcgtccgc ctgcgtctgc tgtgcgcct cggcgccgc gcgtggccgc tccgggtggg actggcgctg gaggccgcca ccgcgggac gccctccgc tgcctacc ccgcgcgc cctgcgcgc aacttgccg aagccgggc ggggcgggc gcaggggc gcgggggc gagggcaga gggagcctga agttccgct gcccaactac caggtggcgt tgtttgagaa cgaacgggcg ggcaccctca tctccagct gcacgcgac tacaccatc agggcgagga ggagcgctg agctattaca tggaggggt gttcgacgag cgtcccggc gctacttccg aatcgactct gccacgggc ccgtgagcac ggacagcgtat ctggaccgc agaccaagga gacgcacgtc ctcagggtga aagccgtgga ctacagtac ccgcgcgc cgcgcgcgc ctacatcact gtcttggtca aagacaccaa cgaccacag ccggtcttc agcagtcgga gtaccgcgag cgcgtgcggg agaacttga ggtgggctac gagggtctga ccaccgcgc cagcgaacgc gactcgccca tcaacgcca ctctgcttac cgcgtgttg gggcgcgctg ggacgtcttc cagctcaacg agagctctgg cgtggtgag acacgggcgc tgcgtggaccg ggaggagcgc gccgagtacc agctcctggt ggaggccaa caccaggggc gcaatccggg ccgcctcagt gccacggcca ccgtgtacat cgaggtggag gacgagaacg acaactacc ccagttcagc gagcagaact acgtggtcca ggtgcccag gacgtgggc tcaacacggc tgtgctgca gtgcaggcca cggaccggga ccagggccag aacgggcca ttcactacag catcctcagc gggaacgtgg ccggccagt ctacctgac tcgctgagc ggatccctgga tgtgatcaac cccttgatt tcgaggatgt ccagaaatc tcgctgagca ttaaggccca ggatgggggc cggcccccgc tcatcaattc ttcagggggtg gtgtctgtgc aggtgctgga tgtcaacgac aacgagccta tctttgtgag cagccccctc caggccacgc tgcgtggagaa tgtgccccg ggctaccccg tgggtgacat tcaggcggtg gacgaggact ctggagagaa cgcgcgcgc cactatcgcc tgggtgacac ggctccacc ttctggggg gcggcagcgc tgggcctaag aatcctgcc ccaccctga cttcccttc cagatccaca acagctccg ttggatcaca gtgtgtgccg agctggaccg cgaggaggtg gagcactaca gctcgggggt ggaggcggtg gaccacggct cgcctccat gagctcctcc accagcgtgt ccatcacggt gctggacgtg		

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444	73584	Cadherin EGF NP_055061.1 LAG Seven- Pass G-Type Receptor 1 (CELSR1/Flam ingo)	cagtgaggac ccgtggctgg cagcccgggc agtcctttgc aaaggcacc cttgtcttaa aatcacttcg ctatgtggga aagtgaggga tacttttata tatttgtatg ggactctgag gaggtgcaac ctgtatatat attgatttcg tgctgacttt gttatcccca gagatccatg caatgatctc ttgtgtcttt cctgtcaag attgcacagt tgtacttgaa tctggcatgt gttgacgaaa ctggtgcccc agcagatcaa aggtgggaaa taactgcagca gtgggggctaa aaccaagcgg ctagaagccc tacagtgc ccggccagg aagtggagat ggtgtgggccc ctccccggg gccccctggg tcccagtg tgcgtgtg tgcgtttgc ctcgtgctgc atctgccccg gctgtgtgaa ttcaagacag ggagtgag cactaggcag gtgtgaggag cctgtgtgag gtcactgtgg ggcacggtt cccacaggct gtcattttt accgtgtcat tctgtgacca cccccctc cctcacgc cctccagggt gcccgaggc tgcaggtggg gatggctttg tctttgtct ctgctcccc tgggacctgg gaccttaaa cgttgcaggt tcctgatttg gacagagtg tggggcctc cagggcgtta catacctct gccaatctc taactctctg agactgcgag gatctccagg cagggttctc cctctggag tctgaccaat tacttcattt tgcctcaaat ggccaattgt gcagaggag aaagccacag ccacactctt caacggttac caaactgttt ttggaattc acaccaaggt cgggcccact gcaggcagct ggcacagcgt gggccgaggg gctgtggaac ggttcccgga actgtcagac atgtttgatt ttagcgttc cttgttctt caaatcaggt gcccaataa gtgatcagca cagctgcttc caaataggag aaaccataa ataggatgaa aatcaagtaa aatgcaaga tgtccacact gttttaact tgacctgat gaaaatgta gcactgttag cagatgccta tgggagagga aaagcgtatc tgaatatgt ccaggacag aggatgaaat gagatccca agtccctaca cctgaatgaa ttatacatgt gcttaccag gtgagtgttc ttctgaagat aaaaaactct agtcccttta aacgtttgcc cctggcgttt cctaagtacg aaaaggtttt taagtcttcg aacagtcctc ttcatgact ttaacaggat tctgccccct gaggtgtaat tttttgttc tattttttc cactactcc acagccaaca tcacgaggtg taatttttaa ttgatcaga actgttacca aaaaacaact gtcagtttta ttgagatggg aaaaatgtaa acctattttt attacttaag actttatggg agagattaga cactggaggt ttttaacaga acgtgtattt attaatgttc aaacactgg aattacaaat gagaagagtc tacaataaat taagattttt gaattgtac ttctgcggtg ctggtttttc tcacaaaaa cccccccc tccccatgcc caggtggccc gtggaaggga cggtttacgg acgtgcagct gagctgtccg tgtcccatgc tccctcagcc agtggaaact gccggaact ttgtccatt cctagtagg cctgccacag cctagatggg cagtttttgt ctttcaccaa attgaggac ttttttttt tgcattatt tcttcagttt tctttcttg cactgatctt tctcctctcc ttctgtgact ccagtgactc agacgttaga cctcttgatg ttttccact ggtccctgag gctctgttc PRELLDVGRD VILLIAAAAA LPAMGLRAA WEPVPGGTR AFALRPGCTY AVGAACPRA P CGTGARLCA ICFPVGGCA AQHSALAP TLPACRCP NLPRCPGRP ICPLPGGSVR LRLCALRRA AGAVRVGLAL EAATAGTSPA SPSPPLPP NPPEARAGPA RRARRGTSGR GSLKFPMPNY QVALFENEP GTLILQLHAH YTEGEERV SYMEGLFDE RRGYFRIDS ATGAVSTDSV LDRETKETHV LRVKAVDST PPSATTYIT VLVKDTNDHS PVFEQSEYRE RVRENLEVG EVLTIRASDR DSPINANLRY RVLGAWDVF QLNESGWS TRAVLDREA AEYQLLVEAN DQGRNPGPLS ATATVYIEVE DENDNYPQS EQNVVQVPE DVGLNTAVLR	Homo sapiens
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VQATDRDQGG NAAIHYSILS GNVAGQFYLH SLSGILDVIN PLDFEDVQKY SLSIKAQDGG  
RPPLINSSGV VSVQVLVDND NEPIFVSSPF QATVLENVPL GYPVVHIQAV DADSGENARL  
HYRLVDAST FLGGGAGPK NPAPTDFPF QIHNSSGWIT VCAELDREEV EHYSGVEAV  
DHGSPPMSSS TSVSITVLDV NREALSSQRG GGLITLALPL DYKQEQQYVL AVTASDGTSS HTAHVLINVT  
TYQLTGGNTR NREALSSQRG GGLITLALPL DYKQEQQYVL AVTASDGTSS HTAHVLINVT  
DANTHRPVFQ SSHYTVSVSE DRPVGTSIAT LSANDTTELE NARITYVIQD PVPQFRIDPD  
SGTMYTMEL DYENQVAYTL TIMAQDNGIP QKSDTTTLEI LILDANDNAP QFLWDFYQGS  
IFEDAPPSTS ILQVSATDRD SGPNGRLLYT FQGGDDGDGD FYIEPTSGVI RTQRRLDREN  
VAVYNLWALA VDRGSPTPLS ASVEIQVTIL DINDNAPMFE KDELELFVEE NNPVGSVVAK  
IRANDPDEGP NAQIMYQIVE GDMRHHFFQLD LLNGDLRAMV ELDFEVREY VLVVQATSAP  
LVSRATVHIL LVDQNDNPPV LPDFQILFNN YVTNKSNSFP TGVTGICIPAH DPDVSDSLNY  
TFVQGNELRL LLLDPATGEL QLSRDLNRR PLEALMEVSU SDGHSVTAF CTLRVTIITD  
DMLTNSITVR LENMSQEKFL SPALLAFVEG VAAVLSTTKD DVFENVQND TDVSSNINLV  
TFSALLPGGV RGQFFPSED L QEQIYLNRTL LTTISTQRLV PFDDNICLRE PCENYMKCVS  
VLRFDSSAPF LSSTTVLFRP IHPINGLRCR CPPGFTGDYC ETEIDLCSYD PCGANGRCRS  
REGYTCECF EDFTGEHCEV DARSGRACANG VCKNGGTCVN LLIGGFHCVC PPGEYERPVC  
EVTRSFPPQ SEVTFRGLRQ REHFTISLTF ATQERNGLLL YNGRENEKHD FIALEIVDEQ  
VQLTFSAGET TTTVAPKVPVS GVSDGRWHSV QVQYNNKPNL CHLGLPHGPS GEKMAVVTVD  
DCDTTMAVRF GKDIGNYSKA AQGTQTSKK SLDLTGPLLL GGVPNLPEDF PVHNRQFVGC  
MRNLSDVGKN VDMAGFIANN GTREGCAARR NFCDGRRCON GGTCVNRWNN YLCECPLRFG  
GKNCEQAMPH POLFSGESV SVMSLGLRVT DGEWHLLIE LKNVKEDSEM KHLVTMTLDY  
LQILNNYLQF EVSHGPSDVE SVMSLGLRVT DGEWHLLIE LKNVKEDSEM KHLVTMTLDY  
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ALKVRVKDGC DVDDPCTSSP CPPNSRCHDA WEDYSCVCDK GYLGINCVDA CHLNPENMG  
ACVRSFGSPQ GYVCEGSPH YGPYCENKLD LPCDCEPHGS HSRTCMTATG QCACKPGVIG RQCNRCNDNF  
TNGQCQCKEN YYKLLAQDTC LPCDCEPHGS HSRTCMTATG QCACKPGVIG RQCNRCNDNF  
AEVTTLGCEV IYNGCPKAFE AGIWWPQTKF GQPAAVPCPK GSVGNVHRHC SGEKGLPPE  
LFNCTTISFV DLRAMEKLS RNETQVDGAR ALQVLRALRS ATQHTGTLEF NDVRTAYQLL  
GHVLQHESWQ QGFDLAATQD ADFHEDVIHS GSALLAPATR AAWEQIQRSE GGTAQLLRRL  
EGYFSNVARN VRRTYLRPFV IVTANMILAV DIFDKFNFTG ARVPRFDTH EEPFRELESS  
VSFPADFRP PEEKEGPLL R PAGRRTPQT TRPGPGTERE APISRRRRHP DDAGQFAVAL  
VIIYRTLQQL LPERYDPRR SLRLPHRPII NTPMVSTLVY SEGAPLPRPL ERPLVEFAL  
LEVEERTKV CVFWNHSVAV GGTGGSARG CELLSRNTH VACQCSHTAS FAVLMDISRR  
ENGEVLPKI VTYAAVSLSL AALLVAFVLL SILVRMLRSNL HSIHKLAVA LFLSQLVFI  
GINQENPFL CTWVAILLHY IYMSTFAWTL VESLHVYRML TEVRNIDTGP MRFYVVVGWG  
IPAIVTGLAV GLDPQGYGNP DFCWLSLQDT LWSFAGPIG AVIINTVTS VLSAKVSCQR  
KHYYGKGI VSLRTAFLL LLLISATWLL GLLAVNRDAL SFHYLFAIFS GLQGPVLLF  
HCVLNQEVK HILKGVLGRRK LHLED SATTR ATLLTRSLNC NTTFGDGPD LRTDLGESTA  
SLDSIVRDEG IQKLGVSGL VRGSHGEPDA SIMPRSCKDP PGHDSDSSE LSLDEQSSSY  
ASSHSSDSED DGVGAEEKWD PARGAVHSTP KGDVANHVP AGWPDQSLAE SDEDPGKGP  
RLKVETKVS ELHREEQGS RGEYPPDQES GGAARLASSQ PPEQRKGILK NKVTYPPPLT

445	74514	5-HT5A Receptor	NM_024012	LTEQTLKGRL REKLADCEQS PTSSRTSSLG SGGPDCAITV KSPGREPGRD HLNQVAMNVR TGSAQADGSD SEKP atggaattac cagtgaaact aacctccttt tccctctcca cccctcccc ttggagacc A aaccacagcc tcggcaaga cgacctgcgc cccagctgc cctgctctc ggtcttcgga gtgcttattc tcacctgtct gggtttctg gtggcgcgga cgttcgctg gaacctgctg gtgctggcga ccacctccg tctacgcacc ttccaccgc tgcaccaca cctggtggca tccatggccg tctcgatgt cctggtggcc gcgtggta tgcgtgag cctggtgcat gagctgtccg ggcgcgctg gcagctaggt cggaggtgt gccagctttg gatcgctgc gacgtgcttt gctgcacgc cagcatctgg aacgtgacg ccatagccct ggaccgctac tgggtccatca cgcgccacat ggaatacacg ctccgcacc gcaagtgcgt ctccaacgtc atgatcgcc tcacctggc actctccgct gtcatctctc tggccccgt gcttttggc tggggagaga cgtactctga ggcagcgag gagtgcagg taagccgga gccctctac gccgtgtct ccaccgtagg cgcctctac ctgcgctct gtgtgtgtc ttctgtgtac tggagatct acaaggctgc caagtccgc gtgggtcca ggaagccaa tagcgtctca cccatatccg aagctgtgga ggtgaaggac tctgccaac agcccagat ggtgttca gtccgccaag ccaccgtcac ctccagcca gaaggcgga cgtggcgga gcagaaggag cagcgggccg cctcatggt ggcacatctc attgctgt tctgtctctg ctggatcccc ttctttctca ccgagctcat cagtcctcctc tgcctctgt acatccgc catctggaa agcatcttcc tgtgcttg ctactccaa cctctctta acccctgat ctatacggct ttcaacaaga actacaacag cgccttcaag aactctttt ctaggcaaca ctga MDLPVNLTSE SLSTPSPLET NLSLGGDLR PSSLLSVFG VLILTLGL VAATFAWNLL P VLATILRVRT FHRVPHNLVA SMAVSDVLA ALVPLSLVH ELSGRWQLG RRLCQLWIAC DVLCTASIW NVTALDRY WSITRMEYT LRTRKCVSNV MIALTWALSA VISLAPLLFG WGTYSEGSE ECQVRSREPS AVFSTVGAFY LPLCVLFVY WKIYKAKEF VGSRKTNVS PISEAVEVKD SAKQPMVFT VRHATVTFQ EGDWREQKE QRAALMVGIL IGVFVLCWIP FFLTELISPL CSCDIPAIWK SIFLWLGYSN SFENPLIYTA FNKNYNSAFK NFFSRQH gtaatgcaga gataataaa ctctctaggt ccataggtct tataataatt taataaccta A aacatggtat acaaatctct ccaaaccaa taacataatt atagtttcaa aaagtcccc aaactttcaa gtagatttt attgcttga tgaaggctt taaatatga aagtcttgcc tgtgaaggc aatcctttc ccgtgactg gtagctatag aaatacaga atgtgcccag gggttcactt ccctaataac catcatcac atttctcaac ctccctaata accagccacc atgtgagaag gatccacagt tactgttat gactataatt aactagtacc tgggactggt cagtgaggtt ggttgcaac tgatgctaag gatgtcaag ttgtctcggc ctctgttccc agccagtaag taattccctg gcctcgcc ataccctta atcttggtca gctgattatg acaggcagac agcacagtaa ataactat atattaga aacccaaagc atagtatca atggtatata cccaacagca tcttagaat ggagagctg tagcaaggc ctccaatgtg aaggtcaaca cagtcactgt gatcggtga ttctcatttt gtaaaagcatg atctctggtg gtcattttta tcttctaac ttattgaaa agtctcctgt ttggggggcc cgcctctggt cacagccaga ctgactcagt ttccctggga ggtcccgctc gagcccgctc ttccctccc tctgcccgc ccagccctc gcccacct cggcgccgc acatctgct gctcagctcc agacggcgc cggaccccc ggcggggat ccagccaggt gggagcccc cagatgaggt	Homo sapiens
446	74514	5-HT5A Receptor	NP_076917.1	atggaattac cagtgaaact aacctccttt tccctctcca cccctcccc ttggagacc A aaccacagcc tcggcaaga cgacctgcgc cccagctgc cctgctctc ggtcttcgga gtgcttattc tcacctgtct gggtttctg gtggcgcgga cgttcgctg gaacctgctg gtgctggcga ccacctccg tctacgcacc ttccaccgc tgcaccaca cctggtggca tccatggccg tctcgatgt cctggtggcc gcgtggta tgcgtgag cctggtgcat gagctgtccg ggcgcgctg gcagctaggt cggaggtgt gccagctttg gatcgctgc gacgtgcttt gctgcacgc cagcatctgg aacgtgacg ccatagccct ggaccgctac tgggtccatca cgcgccacat ggaatacacg ctccgcacc gcaagtgcgt ctccaacgtc atgatcgcc tcacctggc actctccgct gtcatctctc tggccccgt gcttttggc tggggagaga cgtactctga ggcagcgag gagtgcagg taagccgga gccctctac gccgtgtct ccaccgtagg cgcctctac ctgcgctct gtgtgtgtc ttctgtgtac tggagatct acaaggctgc caagtccgc gtgggtcca ggaagccaa tagcgtctca cccatatccg aagctgtgga ggtgaaggac tctgccaac agcccagat ggtgttca gtccgccaag ccaccgtcac ctccagcca gaaggcgga cgtggcgga gcagaaggag cagcgggccg cctcatggt ggcacatctc attgctgt tctgtctctg ctggatcccc ttctttctca ccgagctcat cagtcctcctc tgcctctgt acatccgc catctggaa agcatcttcc tgtgcttg ctactccaa cctctctta acccctgat ctatacggct ttcaacaaga actacaacag cgccttcaag aactctttt ctaggcaaca ctga MDLPVNLTSE SLSTPSPLET NLSLGGDLR PSSLLSVFG VLILTLGL VAATFAWNLL P VLATILRVRT FHRVPHNLVA SMAVSDVLA ALVPLSLVH ELSGRWQLG RRLCQLWIAC DVLCTASIW NVTALDRY WSITRMEYT LRTRKCVSNV MIALTWALSA VISLAPLLFG WGTYSEGSE ECQVRSREPS AVFSTVGAFY LPLCVLFVY WKIYKAKEF VGSRKTNVS PISEAVEVKD SAKQPMVFT VRHATVTFQ EGDWREQKE QRAALMVGIL IGVFVLCWIP FFLTELISPL CSCDIPAIWK SIFLWLGYSN SFENPLIYTA FNKNYNSAFK NFFSRQH gtaatgcaga gataataaa ctctctaggt ccataggtct tataataatt taataaccta A aacatggtat acaaatctct ccaaaccaa taacataatt atagtttcaa aaagtcccc aaactttcaa gtagatttt attgcttga tgaaggctt taaatatga aagtcttgcc tgtgaaggc aatcctttc ccgtgactg gtagctatag aaatacaga atgtgcccag gggttcactt ccctaataac catcatcac atttctcaac ctccctaata accagccacc atgtgagaag gatccacagt tactgttat gactataatt aactagtacc tgggactggt cagtgaggtt ggttgcaac tgatgctaag gatgtcaag ttgtctcggc ctctgttccc agccagtaag taattccctg gcctcgcc ataccctta atcttggtca gctgattatg acaggcagac agcacagtaa ataactat atattaga aacccaaagc atagtatca atggtatata cccaacagca tcttagaat ggagagctg tagcaaggc ctccaatgtg aaggtcaaca cagtcactgt gatcggtga ttctcatttt gtaaaagcatg atctctggtg gtcattttta tcttctaac ttattgaaa agtctcctgt ttggggggcc cgcctctggt cacagccaga ctgactcagt ttccctggga ggtcccgctc gagcccgctc ttccctccc tctgcccgc ccagccctc gcccacct cggcgccgc acatctgct gctcagctcc agacggcgc cggaccccc ggcggggat ccagccaggt gggagcccc cagatgaggt	Homo sapiens
447	81765	Thromboxane A2 Receptor	NM_001060	atggaattac cagtgaaact aacctccttt tccctctcca cccctcccc ttggagacc A aaccacagcc tcggcaaga cgacctgcgc cccagctgc cctgctctc ggtcttcgga gtgcttattc tcacctgtct gggtttctg gtggcgcgga cgttcgctg gaacctgctg gtgctggcga ccacctccg tctacgcacc ttccaccgc tgcaccaca cctggtggca tccatggccg tctcgatgt cctggtggcc gcgtggta tgcgtgag cctggtgcat gagctgtccg ggcgcgctg gcagctaggt cggaggtgt gccagctttg gatcgctgc gacgtgcttt gctgcacgc cagcatctgg aacgtgacg ccatagccct ggaccgctac tgggtccatca cgcgccacat ggaatacacg ctccgcacc gcaagtgcgt ctccaacgtc atgatcgcc tcacctggc actctccgct gtcatctctc tggccccgt gcttttggc tggggagaga cgtactctga ggcagcgag gagtgcagg taagccgga gccctctac gccgtgtct ccaccgtagg cgcctctac ctgcgctct gtgtgtgtc ttctgtgtac tggagatct acaaggctgc caagtccgc gtgggtcca ggaagccaa tagcgtctca cccatatccg aagctgtgga ggtgaaggac tctgccaac agcccagat ggtgttca gtccgccaag ccaccgtcac ctccagcca gaaggcgga cgtggcgga gcagaaggag cagcgggccg cctcatggt ggcacatctc attgctgt tctgtctctg ctggatcccc ttctttctca ccgagctcat cagtcctcctc tgcctctgt acatccgc catctggaa agcatcttcc tgtgcttg ctactccaa cctctctta acccctgat ctatacggct ttcaacaaga actacaacag cgccttcaag aactctttt ctaggcaaca ctga MDLPVNLTSE SLSTPSPLET NLSLGGDLR PSSLLSVFG VLILTLGL VAATFAWNLL P VLATILRVRT FHRVPHNLVA SMAVSDVLA ALVPLSLVH ELSGRWQLG RRLCQLWIAC DVLCTASIW NVTALDRY WSITRMEYT LRTRKCVSNV MIALTWALSA VISLAPLLFG WGTYSEGSE ECQVRSREPS AVFSTVGAFY LPLCVLFVY WKIYKAKEF VGSRKTNVS PISEAVEVKD SAKQPMVFT VRHATVTFQ EGDWREQKE QRAALMVGIL IGVFVLCWIP FFLTELISPL CSCDIPAIWK SIFLWLGYSN SFENPLIYTA FNKNYNSAFK NFFSRQH gtaatgcaga gataataaa ctctctaggt ccataggtct tataataatt taataaccta A aacatggtat acaaatctct ccaaaccaa taacataatt atagtttcaa aaagtcccc aaactttcaa gtagatttt attgcttga tgaaggctt taaatatga aagtcttgcc tgtgaaggc aatcctttc ccgtgactg gtagctatag aaatacaga atgtgcccag gggttcactt ccctaataac catcatcac atttctcaac ctccctaata accagccacc atgtgagaag gatccacagt tactgttat gactataatt aactagtacc tgggactggt cagtgaggtt ggttgcaac tgatgctaag gatgtcaag ttgtctcggc ctctgttccc agccagtaag taattccctg gcctcgcc ataccctta atcttggtca gctgattatg acaggcagac agcacagtaa ataactat atattaga aacccaaagc atagtatca atggtatata cccaacagca tcttagaat ggagagctg tagcaaggc ctccaatgtg aaggtcaaca cagtcactgt gatcggtga ttctcatttt gtaaaagcatg atctctggtg gtcattttta tcttctaac ttattgaaa agtctcctgt ttggggggcc cgcctctggt cacagccaga ctgactcagt ttccctggga ggtcccgctc gagcccgctc ttccctccc tctgcccgc ccagccctc gcccacct cggcgccgc acatctgct gctcagctcc agacggcgc cggaccccc ggcggggat ccagccaggt gggagcccc cagatgaggt	Homo sapiens

448

449	98519	Chemokine (C motif) Receptor 1 (CCXCR1)	Chemokine (C motif) Receptor 1 (CCXCR1)	NM_005283	atggagtcct caggcaacc agagagcacc acctttttt actatgacct tcagagccag A	Homo sapiens
					ccgtgtgaga accaggcctg ggtctttgct accctcgcca ccaactgtctt gtaactgcctg	
					gtgtttctcc tcagcctagt gggcaacagc ctggctctgt ggtcctggt gaagtatgag	
					agcctggagt ccttcaccaa catcttcacg taccactgtt gctctcaga cctgggtgttc	
					gctgtcttgt tgctctgtg gatctccca taccactgtt gctgggtgct gggagacttc	
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					atcctgttct gctacgtgga gatcctcagg acctgttcc gctcacgctc caagcggcgc	
					caccgcagg tcaagctcat ctctgccatc gtggtggcct acttctctag ctgggggtccc	
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					gccaaacagc agctagaata cgccctgctc atctgcgca acctgcctt ctccactgc	
					tgctttaacc cgggtgctca tgtctctgtg ggggtcaaagt tccgcacaca cctgaacat	
					gtctccggc agttctggt ctgccggctg caggcaccca gccagcctc gatcccccac	
					tcctctgtg ccttcgcta tgaggcgcc tcttctact ga	
450	98519	Chemokine (C motif) Receptor 1 (CCXCR1)	Chemokine (C motif) Receptor 1 (CCXCR1)	NP_005274.1	MESSGNPEST TFFYDLSQ PCENQAWFA TLATVLYCL VLLSLVGN LVLWLKYE P	Homo sapiens
					SLESLNIFI INCLSDLVF ACLPWNISP YHWGWLGD LCKLLNMIFS ISLYSIFFL	
					TIMTHRYLS VVSPSLTRV PTLRCRLVT MAVVVASILS SILDITFHKV LSSGCDYSEL	
					TWYLTSVYQH NLFLLSLGI ILFCYVEILR TLFRSRKRR HRTVKLIFAI VWAYFLSWG P	
					YNFTLFLOTL FRTQIIRSCE AKQOLEYALL ICRNLAFSHC CFNPVLYFV GVKFRHLKH	
					VLRQFWFCRL QAPSPASIPH SPGAFAYEGA SFY	
451	130108	G Protein-Coupled Receptor 75	G Protein-Coupled Receptor 75	NM_006794	gcgatggcga tgaatgctct agtcctgcat catccagagc ggcaggcgag ctgggggtccg A	Homo sapiens
					gactgcgaga tggaggagg ggcgcgtcg gcacccggca ggcctatctg tcttgggctt	
					ctttgtcac atattgctca tctgtgagct gaggccctga ctacatgagt atttttgggg	
					agcagaagaa ggagacattt ctctccgaaa atgaactcaa caggccacct tcaggatgcc	
					cccaatgcca cctgcctcca tgtgcctcac tcacaggaag gaaacagcac ctctctccag	
					gagggtcttc agtatctcat ccacacagcc accttggtga cctgtacttt tctactggcg	
					gtcatcttct gcttgggttc ctatggcaac ttcattgtct tcttgcctt cttegatcca	
					gccttcagga aattcagaac caactttgat tcatgatcc tgaacctgtc ctctgtgac	
					ctcttcattt gtggagtgc agcccccatg ttcaacctttg tgttattctt cagctcagcc	
					agtagtatcc cggatgcttt ctgcttcaat ttccatctca ccagttcagg ctctcatc	
					atgtctctga agacagtgc agtgatcgcc ctgcacggc tccggatggt gttggggaaa	
					cagcctaate gcacggcctc ctctccctgc acctactcc tcacctgct tctctggg	
					accagtttca ccttggccac ctgggctacc ttgaaaacca gcaagtccca cctctgtctt	
					cccatgtcca gctgattgc tggaaaagg aagccattt tgtctctcta tgtgttcgac	
					ttcaccttct gtgtgtctgt ggtctctgtc tcttacatca tgattgtca gacctgcgg	
					aagaacgctc aagtcagaaa gtgccccctt gtaatcacag tcatgtctc cagaccacag	
					ccttctcatgg ggtccctgt gcaggagggt ggaatccca tccagtgtgc catgccggt	
					ctgtatagga accagaatta caacaaactg cagcacgttc agaccgtgg atataccaag	

327/448

452

130108 G Protein-  
Coupled  
Receptor  
GPR75

NP\_006785.1

Homo  
sapiens

agtcaccaacc aactggtcac ccctgcagca agccgactcc agctcgtatc agccatcaac  
ctctccactg ccaaggattc caaagccgtg gtcacctgtg tgatcattgt gctgtcagtc  
ctggtgtgct gtcttccact ggggatttcc ttggtacagg ttggtctctc cagcaatggg  
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ttaaacctt ttatatatc tcggaacagt gcagggtgga gaaggaaagt gctctgggtg  
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aaaacctaca agattcaact gaaaagttgg cagttatggt tttcttcat ctgatgtgct  
agtatctggt gatttgctt gtagttgtt gacatcttaa gattgatgt gaaagtttta  
gattttttac cctg

P

MNSTGHLQDA PNATSLHVPH SQENSTSLQ EGLQDLIHTA TLVTCTFLA VIFCLGSYGN  
FIVFLSFFDP AFRKERTNFD FMINLSFCD LFICGVTAPM FTFVLFSSA SSIPDAFCFT  
FHLTSSGFII MSLKTVAVIA LHLRLMVLGK QPNRTASFPC TVLLTLLLWA TSFTLATLAT  
LKTSKSHLCL PMSSLIAGKG KAILSLYVVD FTFCVAVSV SYIMIAQTLR KNAQVRKCPP  
VITVDASRPQ PFMGVPVQGG GDPIQCAMPA LYRNQYNKL QHVQTRGYTK SPNQLVTPAA  
SRLQLVSAIN LSTAKDSKAV VTCVIVLSV LVCCPLGIS LVQVLSNG SFILYQFELF  
GFTLIFKSG LNPFIYSRNS AGLRRKVLWC LQYIGLGFFC CKQKRLRAM GKNLEVRN  
KSSHETNSA YMLSPKPQKK FVDQACGPH SKESMVSPKI SAGHQHCGQS SSTPINTRIE  
PYYSIYNSSP QEESPPCNL QPVNSFGFAN SYIAMHYHTT NDLVQYDST SAKQIPVPSV  
ataacagcat gaagtgcctg ggaactgaa taggcgtgtc ctctccctcg accctcccc  
tcctgtccc tctgtcacc cctcgtcgt tccctccctc cggcgaggc cgcctttata  
acaactgctc agagtgcgag ggcgggatag ctgtccaaag tctccccag cactgaggag  
ctcgctgct gccctcttgc gcgcgggaaag cagcaccaaag ttcacggcca acgcttggc  
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gggcatctt ggctcacct tgccttcac cactcagttt cctctccctc tgggtgtgtt  
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tgtcagctcg accaagctcg tccggggggag gaagccccct tccctgttg tgattctggg  
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catgaatagg accaagtcac atgtcttttc tgagctttcc gctcctcgtc gcaatgaaga  
ctttgtctc ctgctcacct acgtcctctt cttgatggcg ctgaccttc tcatgtcctc  
cttcacctc tgtggttctt tcacgggctg gaagagacat gggggccaca tctacctcac

453

133117 G Protein-  
Coupled  
Receptor  
RAIG1

NM\_003979

Homo  
sapiens

A

454	133117 G Protein- Coupled Receptor RAIG1	NP_003970.1	gatgtctctc tccattgcca tctgggtggc ctggtatcacc ctggtcatgc ttcttgactt tgaccgcagg tgggatgaca ccatcctcag ctccgccttg gctgccaatg gctgggtgtt cctgttggct tatgttagtc cagagtcttg gctgctcaca agcaacgaa accccatgga ttatctctgtt gaggatgctt tctgtaaac tcaactcgtg aagaagact atggtgtgga gaacagagcc tactctcaag aggaatcac tcaaggtttt gaagagacag gggacacgct ctatgcccc tattccacac atttcagct gcagaaccag cctcccaaa aggaattctc catccacgg gccacgctt ggccgagcc ttacaaagac tatgaagtaa agaaagagg cagttaactc tgtcctgaag agtgggacaa atgcagccgg gcggcagatc tagcgggagc tcaaagggat gtggcgaaa tcttgagtct tctgagaaaa ctgtacaaga cactacggga acagtttgcc tccctccag cctcaaccac aattcttcca tgcctgggct gatgtgggct agtaagactc cagttcttag aggcgtgta gtattttttt tttttgtct catcctttgg atactcttt taagtggag tctcaggcaa ctcaagtta gaccttact cttttgttt gtttttgaa acaggatctt gctctgtcac ccaggcttga gtgcagtgtt gcatcacag ccagtgacag cctcgaccac ctgtgtcaa gcaatcctcc catctccatc tccaaagt ctgggatgac agcgtgagc cacagctccc agcctaggcc cttaactttg ctgttatttt ccatggacta aaggtctggt catctgagct cagctggctc cacacagctc tagggcctg ctccttaac tcacagtggg ttttgtgag ctctgtggcc cagagcagac ctgcatact gagcaaaaat agcaaaagcc tctctcagcc cactggcctg aatctacac tgaagcacaac ttgtggcac cccgctccc caaccttct tgcctgggta ggagaggta aagatcaccc taaatctact catctctcta gtgtgctc acatgggccc tcagcagctc cccagcaca attcacaggt caccctctc tcttgcat gtcccaaac ttgctgtcaa ttccgagatc taatctccc ctacgctctg ccaggaattc ttccagacct cactagcaca agcccggtg ctccttgtca ggagaatttg tagatcattc tcaattcaaa ttctggggc tgatactct ctcatctgc acccaacct ctgtaaatag atttacgcga ttacggctg cattctgtaa gtggcatgg tctcctaag gagagtggt cattgtataa taagtattc acctgagtat gcaataaaga tgtggtggcc actctttcat ggtggtggca gcaaaaaaa aaaaaa P	Homo sapiens
455	152198 Tachykinin Receptor 2	NM_001057	RRKMLPTQFL FLGLVLGIFG LTFAFIIGLD GSTGTRFFL FGILFSICFS CLLAHAVSLT KLVRGRKPLS LLVILGLAVG FSLVQDVIAI EXIVLTNNRT NVNVFSELSA PRNEDFVLL LTYVLFMAL TFLMSSFTFC GSFTGWRKHG AHIVTMLS IAIWAWITL LMLPDRRW DDTILSSALA ANGVFLLAY VSPEFWLLTK QRNPMDYPVE DAFCKPQLVK KSYGVENRAY SQEITQGE ETGDTLYAPY STHFQLQNP PQKFSIPRA HAWPSYKDY EVKKEGS atggggacct gtgacattgt gactgaagcc aatatctcat ctggccctga gagcaacacc A acgggcatca cagccttctc catgcccagc tggcagctgg cactgtgggc accagcctac ctggccctgg tgcgtgtggc cgtgacgggt aatgccatcg tcatctggat catectggc catcgaggga tgcgcacagt caccactac ttcactgtca atctggcgt ggctgacctc tgcattggct ccttcaatgc cgccttcaac ttgtctatg ccagccacaa catctgtac tttggccgtg ccttctgcta ctccagaac ctctcccca tcacagccat gtttgtcagc atctactcca tgaccgcat tgcgtccgac aggtacatgg ccatcgcca cccctccag cctgggctt cagctcccag caccaggcg gttattgctg gcatctggct ggtggctctc gccctggct cccctcagt ctctactcc accgtacca tggaccagg tggaccagg	Homo sapiens

Homo  
sapiens

P

456 152198 Tachykinin Receptor 2 NP\_001048.1

tgcgtggtg cctggcccg agacagcgg ggaagacgc tctctctgta ccactcgtg  
 gtatcgccc tcatctactt cctgcgcctc gcgtgatgt ttgtagccta cagcgtcatc  
 ggctcacgc tctggaggcg cgcagtgcgc ggacatcagg cgcacgggtgc caactccgc  
 catctgcagg ccaagaagaa gtttgtgaag accatggtgc tgggtggtgct gacgtttgcc  
 atctgctggc tgcctaccac cctctacttc atcctgggca gcttccagg gacatctac  
 tgccacaagt tcatccagca agtctacttg gactcttct ggttggccat gactctacc  
 atgtacaatc ccatcatcta ctgctgtctc aaccacagt ttctcgtctgg gtccggctt  
 gcttccgct gctgcccag ggtcacacc accaaggag ataatcctga gctgactccc  
 acgacctccc tctccacgag agtcaacagg tgtcacacta aggagacttt gttcatggct  
 gggacacag cccctccga ggctaccagt ggggagcgg ggcgtcccca ggtggatca  
 gggctatggt ttgggtatgg ttgcttgcc cccacaaaa ctcagtgtga aattga  
 152198.1 MGTCDIVTEA NISSGESNT TGITAFSMP WQALWAPAY LALVLAVTG NAIWIIILA  
 HRRMRTVNY FIVNLALADL CMAAFNAFN FVYASHNIWY FGAFICYFQN LFPITAMFVS  
 IYSMTAIAAD RYMAIVHPFQ PRLSAPSTKA VIAGIWLVAL ALASPQCIFY TVTMDQGATK  
 CVVWAPEDSG GKTLILYHLV ICWLPYHLYF AVMFVAYSVI GLTLMRRRAVP GHQAHGANLR  
 HLQAKKFKVK TMVLVLTEA NHRFRSGFRL AFRCCPWVTP TKEDKLELTP TTSLSRVNR CHTKETLFMA  
 MYNPIIYCCL NHRFRSGFRL AFRCCPWVTP TKEDKLELTP TTSLSRVNR CHTKETLFMA  
 GDTAPSEATS GEAGRPQDGS GLWFGYGLLA PTKTHVEI

Homo  
sapiens

A

457 152201 Thyrotropin Receptor NM\_000369

ccgctcccg gctcctctt ggcctggggt aaccggaggt gcagagctga gaatgagcgc  
 atttcggagg atggagaaat agccccgagt cccgtggaaa atgagggcgg cggacttgct  
 gcagctgggt ctgctgctgc acctgcccag ggacctgggc ggaatggggt gttcgtctcc  
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 gactctgcag cagctggaat cacactcctt ctacaaattg agtaaatga ctcacataga  
 aattcggaat accaggaaat taacttacat agacctgat gccctcaaa agctccccct  
 cctaaagtcc cttggcattt tcaacactgg acttaaaatg tccccgacc tgaccaaaat  
 ttattccact gatatattct ttatactga aattacagac aaccttaca tgacgtcaat  
 ccctgtgaat gcttttcagg gactatgcaa tgaacacctg acactgaagc tgtacaacaa  
 tggctttact tcagtccaag gatatgcttt caatgggaca agctggatg ctgtttacct  
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 accaagcttg ctggacgtgt ctcaaacagg tgtcactgcc cttccatcca aaggcctgga  
 gcaactgaag gaactgatag caagaaacac ctggactctt aagaaacttc cacttccctt  
 gaggttcctt cacctcacac gggctgacct ttcttaccac agccactgct gtgcttttaa  
 gaatcagaag aaatcagag gaatccttga gtccctgatg tgtaagtga gcagtatgca  
 gagcttgccg cagagaaaat ctgtgaatgc cttgaatagc cccctccacc aggaatatga  
 agagaatctg ggtgacagca ttgttgggta caagaaaaag tccaagtctc aggatactca  
 taacaacgct cattattacg tcttcttga agaacaagag gatgatca ttggttttgg  
 ccaggagctc aaaaaccccc aggaagagac tctacaagct tttagacagc attatgacta  
 caccatattg ggggacagt aagacatggt gtgtaccccc aagtcggatg agttcaaccc  
 gtgtgaagac ataattgggt acaagtctt gagaattgtg gtgtggttgc ttagtctgct



458	152201	Thyrotropin Receptor	NP_000360.1	<p> ggctctcctg ggcaatgtct ttgtcctgct tattctcctc accagccact acaaaactgaa  cgctccccgc ttctctcatgt gcaacctggc ctttgccgat ttctgcatgg ggatgtacac  gctcctcatc gctctgtag acctctaac tcaactctgag tactacaacc atgccatcga  ctggcagaca ggccctgggt gcaacacggc tggtttcttc actgtctttg caagcgagtt  atcggtgtat acgctgacgg tcatcacctt ggagcgctgg tatgccatca ccttcgccat  ggccctggac cggaagatcc gctcagga cgcattgtgc atcatgggtg ggggctgggt  ttgtcgtctc cttctcgcc tgcttcctt ggtgggaata agtagctatg ccaaaagtcat  tatctgcctg cccatggaca cggagacccc tctgtcctg gcataatgt tttttgtct  gacgtcaac atagttgctt tctgtcctg ctgtcgtgt catgtgaaga tctacatcac  agtcgaaat ccgcagtaca acccagggga caaagatacc aaaattgcca agaggatggc  tgtgttgatc ttcaccgact tcatatgcat ggcccacatc tcattctatg ctctgtcagc  aattctgaac aagcctctca tcaactgttag caactccaaa atcttgctgg tactcttcta  tcacttaac tctgtgcca atccattct ctatgtctatt ttcaccaagg ccttccagag  ggatgtgttc atctactca gcaagtgtgg catctgtaaa cgccaggctc aggcataccg  gggacagagg gtctctccaa agaacagcac tgatattcag gttcaaaaagg ttaccacaga  catgaggcag ggtctccaca acatggaaga tgtctatgaa ctgattgaaa actcccatct  aaccacaaag aagcaaggcc aaatctcaga agagtatatg caaacgggtt tgtaagttaa  cactacacta ctcaaatgg taggggaact tacaaaaata tagtttcttg aatatgcatt  ccaatcccat </p>	Homo sapiens
459	152245	C-C Chemokine Receptor 2	NM_000648	<p> LLLDLPRDLG GMGSSPPCE CHQEDFRVT CKDIQRIPLS PBSTQTLKLI P  ETHLRTIPSH AFSNLPNISR IYVSIDVTIQ QLESHSFYNL SKVTHIEIRN TRNLTVIDPD  ALKELPLKLF LGIENTGLKM FPDLTKVYST DIFFILEITD NPYMTSIPVN AFQGLCNETL  TLKLYNNGFT SVQGYAFNGT KLDVAVLNKN KYLTVIDDKDA FGVYSGPSL LDVSQTSVTA  LPSKGLEHLK ELIARNTWTL KKLPLSLSLF HLTRADLSYP SHCCAFKNQK KIRGILESIM  CNESMQSLR QRKSVNALNS PLHQEYENL GDSIVGYKEK SKFQDTHNNA HYVFFEEQE  DEIIGFQQL KNPQEEETLQA FDSHYDYTIC GDSMDVCTP KSDEFNCPED IMGYKFLRIV  VMFVSLALL GNVEVLLILL TSHYKLVNPR FLMCNLAFAD FCMGMYLLLI ASVDLYTHSE  YYNHAIWQT GPGCNTAGFF TVFASELSVY TLTVTILERW YAITFAMRLD RKIRLRHACA  IMVGGWVCCF LLALLPLVGI SSYAKVSICL PMDTETPLAL AYIVFVLTIN IVAFVIVCCC  HVKIYITVRN PQYNPGDKDT KIARMAVLI FTDFICMAPI SFYALSAILN KPLITVSNK  ILLVLFYPLN SCANPFLYAI FTKAFQRDVF ILLSKFGICK RQAQYRGQR VPPKNSTDIQ  VQKVTHDMRQ GLHNMEDVYE LIENSHLTPK KQGQISEEYM QTVL  caggactgcc tgagacaagc cacaagctga acagagaaaag tggattgaac aaggacgcac A  ttcccacagta catccacaac atgctgtcca catctcgttc tcggtttatc agaaatacca  acgagagcgg tgaagaagtc accacctttt ttgattatga ttacggtgct cctgttcata  aatttgacgt gaagcaaat ggggcccacac tctctactcc gcgtactcg cgtgtgttca  tctttggtt ttgtgggcaac atgctggtcg tctctacttc aataaactgc aaaaagctga  agtgcctgac tgacatttac ctgctcaacc tggccatctc tgatcgtctt ttcttatta  ctctccatt gtgggctcac tctgctgcaa atgagtggtt ctttgggaat gcaatgtgca  aattattcac agggctgtat cacatcggtt atttggcgg aatctcttc atcatcctcc  tgacaatcga tagatacctg gctattgtcc atgctgtgtt tgcttataaa gccaggacgg </p>	Homo sapiens

460	152245 C-C Chemokine Receptor 2	NP_000639.1	<p>           tcaaccttgg ggtggtgaca agtgtgatca cctggttgggt gggtgtggtt gggtgtggtt gttctgttcc            caggaatcat ctttactaaa tgccagaaaag aagattctgt ttatgtctgt ggtgttctgt ggtgttctgt            ttccacgagg atggaataat ttccacacaa taatgaggaa ctttttgggg ctttttgggg ctggttctgc            cgctgtcat catgtctatc tgctactcgg gaactcctgaa aacctgtcct cgtgtgtcga cgtgtgtcga            acgagaagaa gaggcataag gcatgagag tcatcttcac catcatgatt gtttacttcc gtttacttcc            tcttctggac tccctataac attgtcattc tccctgaacac tccctgaagaa tttcttggcc            tgagtaactg tgaagcacc agtcaactgg accaaccac gcaggtgaca gagactcttg            ggtgactca ctgtgcatc aatcccatca tctatgctt cgttggggag aagttcagaa            ggtatctctc ggtgttctc gaaagcaca tcccaacgg cttctgcaaa caatgtccag            ttttctacag ggagacagt gatggagtga cttcaacaaa cagccttcc actggggagc            aggaagtctc ggctggttta taaaacgagg agcagttga ttgtgttta taaagggaga            taacaactcg tataaaca caaacttcaa ggtttgttg acaatagaa acctgtaaa            caggtgcca ggaacctcag ggtgtgtgt actaatagag actatgtcac ccaatgcata            tccaacatgt gctcaggaa taatccagaa aaactgtgg tagagacttt gactctccag            aaagctcatc tcagctcctg aaaaatgctt cattaacttg tgctaactct ctttttctag            tcttcataat ttcttcaact aatctctgat tctgtcaatg tcttgaaatc aagggtccagc            tggaggtgaa gaagagaatg tgacaggcac agatgagtg ggtgaggga tagtgggggtc            agggctgaga ggagaaggag ggagacatga gcatggctga cctggagaa agacaaaggt            gagcaaaagg ctacgcatt cagccaggag atgatactgg tccctagccc catctgccc            gtgtatttaa ccttgaaggg ttaccagggt cagggagagt ttgggaactg caataaacctg            ggagttttgg tggagtcga gattctctt ttgcataagt gcatgacata tttttgcttt            attacagttt atctatgga ccatgcaac ttacattga aatctatgaa atatcatgct            ccattgttca gatgcttctt aggccacatc cccctgtcta aaaattcaga aaattttgt            ttataaaga tgcattatct atgatagct aatatatga tatgcaatat aaaatttag            MLTSTRSRFI RNTNESGEEV TTFDDYDGA PCHKFDVKOI GAQLLPPLYS LVFIFGVGN P            MLVVLILINC KKLKCLTDIY LNLAIISDL FLITLPLWAH SAANEWVFGN AMCKLFTGLY            HIGYFGGIF IILLIDRYL AIVHAVFALK ARTVTFGVV SVITWLAVF ASVPGIIFTK            COKEDSVYVC GPYFPRGWN FHTIMRNILG FFGLSNCEST SQLDQATQVT ETILGMTHCCI            AVRVIPTIMI VYFLFWTPYN IVILINTFQE FFGLSNCEST SQLDQATQVT ETILGMTHCCI            NPIIYAFVGE KFRRYLSVFF RKHITKRFCK QCPVFYRETQV DGVSTNTNTPS TGEQEVSAGL            CAGAATCCT CAGGTCCCAC AGAATGAAC ACCTTTTCTA AATAAAGTC AAGCCAAGCT A            GTCTACCCC AAAGAAATC CTAGCAAGCA AAGGTGGCTT CCTTCTCTGAG GCCCAGCCA            GGTGTGTCCA ACCGTAGGAG CCACAGTCA GAGATCAGAG TGACTTAACA GTTAGAGGGC            ACTTGATGAG TAAGTGAA TAGGGAACC AAGTCAGACG ACACCTCCCT TGTGAGTCCC            AACCATGCT ACATCTGGAG AAGAACAGT AAGTCAAGGG ATCAGAGCT GTGATTAGA            GACTGCCAGG GTCCATATGA CCAAGCGGGG GTCCAGCTGG TGAAGCTGG GTGAGGATC            CATTATCTGA ATTTTCCACT CTATGGATGA TCACCTTTTAT TCTTTTCTT TTTCTGAATT            TATTTCCATT TGTATTCC TAAATTTCCCT GGTAGATCAC CTGTGAAAGC TTGCAACTGT            CTGATAAGAA TAAAGGGGA AGGATTGAC TTACAGCAG AGACTTCAGA AGGAGTCTC            TCTAGGAGCA AATTGGGGC AATCCAGTG GAAGAGGAGT GAAGACTGCA CTGAGCTGC            GTTTGGACAA CAGGCACACA ATCTTTACTT ACTTTTCAGG CTGCTTTGAG GT         </p>	Homo sapiens
461	152299 Interleukin-8 Receptor A	LG5459	<p>           tcaaccttgg ggtggtgaca agtgtgatca cctggttgggt gggtgtggtt gggtgtggtt gttctgttcc            caggaatcat ctttactaaa tgccagaaaag aagattctgt ttatgtctgt ggtgttctgt ggtgttctgt            ttccacgagg atggaataat ttccacacaa taatgaggaa ctttttgggg ctttttgggg ctggttctgc            cgctgtcat catgtctatc tgctactcgg gaactcctgaa aacctgtcct cgtgtgtcga cgtgtgtcga            acgagaagaa gaggcataag gcatgagag tcatcttcac catcatgatt gtttacttcc gtttacttcc            tcttctggac tccctataac attgtcattc tccctgaacac tccctgaagaa tttcttggcc            tgagtaactg tgaagcacc agtcaactgg accaaccac gcaggtgaca gagactcttg            ggtgactca ctgtgcatc aatcccatca tctatgctt cgttggggag aagttcagaa            ggtatctctc ggtgttctc gaaagcaca tcccaacgg cttctgcaaa caatgtccag            ttttctacag ggagacagt gatggagtga cttcaacaaa cagccttcc actggggagc            aggaagtctc ggctggttta taaaacgagg agcagttga ttgtgttta taaagggaga            taacaactcg tataaaca caaacttcaa ggtttgttg acaatagaa acctgtaaa            caggtgcca ggaacctcag ggtgtgtgt actaatagag actatgtcac ccaatgcata            tccaacatgt gctcaggaa taatccagaa aaactgtgg tagagacttt gactctccag            aaagctcatc tcagctcctg aaaaatgctt cattaacttg tgctaactct ctttttctag            tcttcataat ttcttcaact aatctctgat tctgtcaatg tcttgaaatc aagggtccagc            tggaggtgaa gaagagaatg tgacaggcac agatgagtg ggtgaggga tagtgggggtc            agggctgaga ggagaaggag ggagacatga gcatggctga cctggagaa agacaaaggt            gagcaaaagg ctacgcatt cagccaggag atgatactgg tccctagccc catctgccc            gtgtatttaa ccttgaaggg ttaccagggt cagggagagt ttgggaactg caataaacctg            ggagttttgg tggagtcga gattctctt ttgcataagt gcatgacata tttttgcttt            attacagttt atctatgga ccatgcaac ttacattga aatctatgaa atatcatgct            ccattgttca gatgcttctt aggccacatc cccctgtcta aaaattcaga aaattttgt            ttataaaga tgcattatct atgatagct aatatatga tatgcaatat aaaatttag            MLTSTRSRFI RNTNESGEEV TTFDDYDGA PCHKFDVKOI GAQLLPPLYS LVFIFGVGN P            MLVVLILINC KKLKCLTDIY LNLAIISDL FLITLPLWAH SAANEWVFGN AMCKLFTGLY            HIGYFGGIF IILLIDRYL AIVHAVFALK ARTVTFGVV SVITWLAVF ASVPGIIFTK            COKEDSVYVC GPYFPRGWN FHTIMRNILG FFGLSNCEST SQLDQATQVT ETILGMTHCCI            AVRVIPTIMI VYFLFWTPYN IVILINTFQE FFGLSNCEST SQLDQATQVT ETILGMTHCCI            NPIIYAFVGE KFRRYLSVFF RKHITKRFCK QCPVFYRETQV DGVSTNTNTPS TGEQEVSAGL            CAGAATCCT CAGGTCCCAC AGAATGAAC ACCTTTTCTA AATAAAGTC AAGCCAAGCT A            GTCTACCCC AAAGAAATC CTAGCAAGCA AAGGTGGCTT CCTTCTCTGAG GCCCAGCCA            GGTGTGTCCA ACCGTAGGAG CCACAGTCA GAGATCAGAG TGACTTAACA GTTAGAGGGC            ACTTGATGAG TAAGTGAA TAGGGAACC AAGTCAGACG ACACCTCCCT TGTGAGTCCC            AACCATGCT ACATCTGGAG AAGAACAGT AAGTCAAGGG ATCAGAGCT GTGATTAGA            GACTGCCAGG GTCCATATGA CCAAGCGGGG GTCCAGCTGG TGAAGCTGG GTGAGGATC            CATTATCTGA ATTTTCCACT CTATGGATGA TCACCTTTTAT TCTTTTCTT TTTCTGAATT            TATTTCCATT TGTATTCC TAAATTTCCCT GGTAGATCAC CTGTGAAAGC TTGCAACTGT            CTGATAAGAA TAAAGGGGA AGGATTGAC TTACAGCAG AGACTTCAGA AGGAGTCTC            TCTAGGAGCA AATTGGGGC AATCCAGTG GAAGAGGAGT GAAGACTGCA CTGAGCTGC            GTTTGGACAA CAGGCACACA ATCTTTACTT ACTTTTCAGG CTGCTTTGAG GT         </p>	Homo sapiens

462	152299 Interleukin- 8 Receptor A	NM_000634	Homo sapiens
		agctgttaag tcaactctgat ctctgactgc agctcctact gttggacaca cctggccgggt A	
		gcttcagtta gatcaaacca ttgctgaaac tgaagaggac atgtcaata ttacagatcc	
		acagatgttg gattttgatg atctaaattt cactggcatg ccacctgcag atgaagatta	
		cagccccgtg atgctagaaa ctgagacact caacaagtat gttgtgata tgcctatgc	
		cctagtgttc ctgctgagcc tgcctggaaa cctcctgggt atgctgtgta tcttatacag	
		cagggtcggc cgctccgtca ctgattctta cctgctgaac ctggcccttg cgcacctact	
		ctttgcccctg acctgccc tctggccgc ctccaagggt aatggctgga tttttggcac	
		attcctgtgc aaggtggtct cactcctgaa ggaagtcaac ttctacagt gcatcctgct	
		gttggccctgc atcagtgtgg accgttaoct ggccattgtc catgccacac gcacactgac	
		ccagaagcgt cacttggtea agtttgtttg tcttggctgc tggggactgt ctatgaatct	
		gtccctgccc ttcttccctt tccgccaggc ttaccatcca acaattcca gtccagtttg	
		ctatgaggtc ctgggaaatg acacagcaaa atggcggatg gtgttgcgga tccctgctca	
		cacctttggc ttcatcgtgc cgtgttttgt catgctgttc tgctatggat tcacctgtcg	
		tacactgttt aaggcccaca tggggcagaa gcaccagcc atgagggtca tctttgctgt	
		cgtctcctc ttctgtcttt tgggtgctgc ctacaacctg gtccgtgtgg cagacacct	
		catgaggacc caggtgatcc aggagagctg tgagcgcgc aacaacatcg gccgggccct	
		ggatgccact gagattctgg gatttctcca tagctgctc aacctcatca tctacgcct	
		catcggccaa aattttcgcc atggattcct caagatcctg gctatgcatg gccgtggtcag	
		caaggagtgc ttggcacgtc atcgtgttac ctctacact tcttcgtctg tcaatgtctc	
		ttccaaacctc tgaaaacctc cgtatgaagg atactctctc tcagaaggaa agaataacca	
		acacctgag gtgtgtgtg gaagtgatc tggctctgga caggcactat ctgggtttttg	
		gggggacgct ataggatgtg gggaagttag gaactgtgt cttcaggggc cacaccaacc	
		ttctgaggag ctgttgaggt acctccaagg accggccttt gcacctccat ggaacgaag	
		caccatcatt cccgttgaac gtacatctt taacctacta actggctaag tagcatggcc	
		acatctgagc cccgaatctg acattagatg agagaacagg cctgaagctg tgtctcctatg	
		agggctggat gctctcgttg acctcacag gagcatctcc tcaactctga gtgttaagcg	
		ttgagccacc aagctggtgg ctctgtgtgc tctgatccga gctcaggggg gtggttttcc	
		catctcaggt gtgttgcatg gtctgctgga gacattgagg caggcactgc caaaacatca	
		acctgccagc tggccttgtg aggagctgga aacacatgtt cccctgggg gtggtggatg	
		aacaaagaga agagggtttt ggaagccaga tctatgccac aagaaccccc ttacccccca	
		tgaccaacat cgcagacaca tgtgtgtggc acctgtgag ccccaagtgg aacgagacaa	
		gcagccctta gcccttccc tctgcagctt ccaggctggc gtgcagcatc agcatcccta	
		gaaagccatg tgcagccacc agtccatttg gcaggcagat gttcctaata agcttctgt	
		tccgtgtctg tccctgtgga agtatcttgg ttgtgacaga gtcaagggtg tgtgcagcat	
		tgttggctgt tccctgcagta gaatgggggc agcacctcct aagaaggcac ctctctgggt	
		tgaagggcag tgttcccttg ggctttaact cctgtagaa cagtctcttg aggcacagaa	
		actcctgttc atgccatac cctggcccaa ggaagatccc ttgttccaca agtaaaagga	
		aatcctctc caggaggtct cagcttcacc ctgaggtgag catcatcttc tgggttaggc	
		cttgcctagg catagcctgc ctcaagctat gtgagctcac cagtcctcc ccaaatgctt	
		tccatgagtt gcagtttttt cctagtctgt ttccctcct tggagaacag ggccctgtcg	
		gtttgttcaac tgtatgtcct tgggtgccttg agcctactaa atgtcaata aataatgac	

463	152299 Interleukin-8 Receptor A	NP_000625.1	acaggaatga atgcatgctg aaaagaccac tctttt	WIIAYALVF LLSLLGNSLV P	Homo sapiens
			MSNITDPQMW DFDDLNTGGM PPADEDYSPC MLETETLNKY	WIIAYALVF LLSLLGNSLV P	
			MLVILYSRVG RSVTDVYLNL LALADLLFAL TLPIMAAKV NGWIFGTFLC KVSLLKEVN	WIIAYALVF LLSLLGNSLV P	
			FYSGILLIAC ISVDRIALV HATRTLQKR HLKFEVCLGC WGLSMNLSLP FFLFRQAYHP	WIIAYALVF LLSLLGNSLV P	
			NNSSPVCYEV LGNDTAKWRM VLRILPHTFG FIVPLFVLMF CYGFTLRTL F KAHMGGKHRA	WIIAYALVF LLSLLGNSLV P	
			MRVIFAVLI FLICWLPYNL VLLADTLMRT QVIOESCERR NNIGRALDAT EILGLFHSCL	WIIAYALVF LLSLLGNSLV P	
			NPIIYAFIGQ NFRHGLKIL AMHGLVSKEF LARHRTSYT SSSNVNVSNNL	WIIAYALVF LLSLLGNSLV P	
			cctgagggcct cctcatggat gggtcaaacg tgacatcatc tggttgttag	WIIAYALVF LLSLLGNSLV P	
			acatctcaac tggcaggaaac gcctcagtcg ggaatgcaca tcggcaaatc cccatcgtgc	WIIAYALVF LLSLLGNSLV P	
			actgggtcat tatgagcatc tccccagtcg ggtttgttga gaatgggatt ctcctctggt	WIIAYALVF LLSLLGNSLV P	
			tcctgtgctt ccgcatgaga agaaatccct tcactgtcta catcacccac ctgtctatcg	WIIAYALVF LLSLLGNSLV P	
			cagacatctc actgctcttc tgtattttca tctgtctat cgtactatgt ttagattatg	WIIAYALVF LLSLLGNSLV P	
			agctttcttc tggccattac tacacaattg tcacattatc agtgactttt ctgtttggct	WIIAYALVF LLSLLGNSLV P	
			acaacacggg cctctatctg ctgacggcca ttagtggga gagtgccctg tcagtccttt	WIIAYALVF LLSLLGNSLV P	
			acccatctg gtaccgatc catcgcccca agtaccagtc ggcattggtc tgtgcccttc	WIIAYALVF LLSLLGNSLV P	
			tgtgggctct ttcttgctg gtgaccacca tggagtagt catgtgcac gacagagaag	WIIAYALVF LLSLLGNSLV P	
			aagagagtca ctctcggaat gactgccgag cagtcacatc cttatagcc atcctgagct	WIIAYALVF LLSLLGNSLV P	
			tcctggctct cagccctc atgctgggtg ccagcaccat ctgtgtcgtg aagatccgga	WIIAYALVF LLSLLGNSLV P	
			agaacacgtg ggtctcccat tctccaaagc ttacatagat catcatggtc accatcata	WIIAYALVF LLSLLGNSLV P	
			tattctctcat ctctcgctat cccatgagac tcctttacct gctgtactat gagtattgggt	WIIAYALVF LLSLLGNSLV P	
			cgaccttgg gaacctacac cacatttccc tgctctctc cacaatcaac agtagcgcca	WIIAYALVF LLSLLGNSLV P	
			acctttcat ttacttctt gtgggaagca gtaagaagaa gagattcaag gagtccttaa	WIIAYALVF LLSLLGNSLV P	
			aagttgttct gaccagggt tcaaaagatg aaatgcaacc tcggcgccag aaagacaatt	WIIAYALVF LLSLLGNSLV P	
			gtaatacgggt cacagttgag actgtcgtct aagaactgtg agggaggtg tggataaaaa	WIIAYALVF LLSLLGNSLV P	
			tgggtgaaca caggtcattt ttagttgtg ctggaaat gacttaagta tctcctaaat	WIIAYALVF LLSLLGNSLV P	
			gtgatacaga agaacaatc atcccatatg catgagatc taattaatga tgaaa	WIIAYALVF LLSLLGNSLV P	
			MDGSNVTSFV VEEPTNISTG RNASVGNHR QIPVHVIM SISPVGFEV GILLWFLCFR P	WIIAYALVF LLSLLGNSLV P	
			MRNPFVTYI THLSIADISL LFCIFILSID YALDYELSSG HYTTIVTSLV TFLFGYNTGL	WIIAYALVF LLSLLGNSLV P	
			YLLTAISVER CLSVLYPIWY RCHRPKYQSA LVCALLWALS CLVTTMEYVM CIDREEESH	WIIAYALVF LLSLLGNSLV P	
			RNDCRAVIIF IAILSFLVFT PLMLVSTIL VVKIRKNTWA SHSSKLYIVI MVTIIFLIF	WIIAYALVF LLSLLGNSLV P	
			AMPRLLYLL YYEYWTSGN LHHISLLFST INSSANPFIY FFGSSKKKR FKESLKVLT	WIIAYALVF LLSLLGNSLV P	
			RAFKDEMQPR RQKDNCTVT VETVV	WIIAYALVF LLSLLGNSLV P	
			atgctgcccgg actggaagag ctcttgatc ctcatggctt acatcatcat cttcctcaat	WIIAYALVF LLSLLGNSLV P	
			ggcctccctg ccaacctctt ggcctgctg gctttgtgg ggcggatccg ccagccccag	WIIAYALVF LLSLLGNSLV P	
			cctgcaacctg tgcacatcct cctgctgagc ctgacgctgg ccgacctct cctgctgctg	WIIAYALVF LLSLLGNSLV P	
			ctgctggcct tcaagatcat cgaggctgag tcgaacttcc gctggtaacct gcccaaggctc	WIIAYALVF LLSLLGNSLV P	
			gtctggccc tcacgagttt tggcttctac agcagcatct actgcagcac gtggctcctg	WIIAYALVF LLSLLGNSLV P	
			gcgggcatca gcatcgagcg ctacctggga gtggctttcc ccgtgcagta caagctctcc	WIIAYALVF LLSLLGNSLV P	
			cgccggcctc tgtatggagt gattggagct ctgggtggcct ggttatgtc ctttgggtcac	WIIAYALVF LLSLLGNSLV P	
			tgcaccatcg tgatcatcgt tcaatacttg aacacgactg agcagggtcag aagtggcaat	WIIAYALVF LLSLLGNSLV P	
464	158822 Mas Proto-Oncogene	NM_002377		gaacccacga A	Homo sapiens
				cccatcgtgc	
				ctcctctggt	
				ctgtctatcg	
				ttagattatg	
				ctgtttggct	
				tcagtccttt	
				tgtgcccttc	
				gacagagaag	
				atcctgagct	
				aagatccgga	
				accatcata	
				gagtattgggt	
				agtagcgcca	
				gagtccttaa	
				aaagacaatt	
				tggataaaaa	
				tctcctaaat	
				tgaaa	
465	158822 Mas Proto-Oncogene	NP_002368.1		GILLWFLCFR P	Homo sapiens
				TFLFGYNTGL	
				CIDREEESH	
				MVTIIFLIF	
				FKESLKVLT	
466	159152 G Protein-Coupled Receptor GPR43	NM_005306		cttcctcaat A	Homo sapiens
				ccagccccag	
				cctgctgctg	
				gcccaaggctc	
				gtggctcctg	
				caagctctcc	
				ctttgggtcac	
				aagtggcaat	

467	159152 G Protein-Coupled Receptor GPR43	NP_005297.1	<p>gaaattacct gctacagagaa cttaccgat aaccagtgg acgtgtgtct gccgtgctg</p> <p>ctggagctgt gcctgtgtgt cttcttcac cccatggcag tcaccatctt ctgtactatg</p> <p>cggtttgtgt ggatcatgt ctcacagccc ttctgtggg cccagaggc gcgccagacc</p> <p>gtgggctgtg ctgtgtgtac gctgtctaat ttctgtgtg ccttcggacc ttacaacgtg</p> <p>tcccacctgg tgggtatca cagagaaaa agccccctgt ggcgtcaat agccgtggtg</p> <p>ttcagttcac tcaacgccag tctggacccc ctgtctctt atttctctt ttcagtgtgtg</p> <p>cgcaggcat ttgggagagg gctgcaggtg ctgcggaatc agggctctc cctgttggga</p> <p>cgagaggga agacacagc agagggaca aatgaggaca ggggtgtgg tcaaggagaa</p> <p>gggatgcaa gttcggact cactacagag tag</p>	<p>PAPVHILLS LTLADLLLL P</p> <p>SSIYCWSTWLL AGISIERYLG VAFPVQYKLS</p> <p>NTTEQVRSNG EITCYENFTD NQLDWLPLVR</p> <p>LVGAQRRLRA VGLAVVTLN FLVCFGPYNV</p> <p>LLFYFSSSVV RRAFGRGLQV LRNQGSSLLG</p>	Homo sapiens
468	159973 Vasoactive Intestinal Polypeptide Receptor 1	NM_004624	<p>ggccacaggc cagcgccact ctgccaggct cccggccatc gccgcctgg tgcgcccgc</p> <p>gccagctctt tgcccgcgc gggccgccc cccggggctc agggcagacc atgcgcccgc</p> <p>caagtccgt gccgcgcgc tggctatgag tgctggcagg cgcctcgcc tgggcccctg</p> <p>ggccggcggg cggccaggcg gccaggctgc aggaggagtg tgactatgt cagatgatcg</p> <p>aggtgcagca caagcagtc ctggaggagg cccagctgga gaatgagaca ataggctgca</p> <p>gcaagatgtg ggacaacct accgtctggc cagccacccc tcggggccag gtagtgtct</p> <p>tggcctgtcc cctcatctt aagctcttct cctccattca agccgcaat gtaagccgca</p> <p>gctgcaccga cgaaggctg acgcacctg agcctggccc gtaccccat gcctgtggtt</p> <p>tggatgacaa ggcagcgagt ttggatgag agcagacctt gttctacgt tctgtgaaga</p> <p>ccgctacac cattggctac ggcctgtccc tcgccacct tctgtgcgc acagctatcc</p> <p>tgaagcctgt caggaagctc cactgcgc ggaactacat ccacatgac ctctcatat</p> <p>cctcatcct gagggctgc cctgtcttca tcaaaagactt ggccctctt cagagcgggg</p> <p>agtcggacca gtgctccgag ggcctggtg gctgtaagg agccatggtc tttttccaat</p> <p>attgtgtcat ggtaacttc ttctggctgc tgggtgaggg cctctacctg tacacctgc</p> <p>ttgcctctc cttctctct ggcgggaagt acttctggg gtacatactc atcggtggg</p> <p>gggtacccag cacttcacc atggtgtgga ccatcgccag gatccattt gaggtattg</p> <p>ggtgtggga caccatcaac tctcactgt ggtggatcat aaaggcccc atctcacct</p> <p>ccatcttgtt aaacttcac ctgtttattt gcatcatccg aatcctgctt cagaaactgc</p> <p>ggccccaga tatcaggaag agtgacagca gtccatactc aaggtagcc aggtccacac</p> <p>tctgtgtat cccctgtt ggagtacact acatcatgtt cgcctctt cegacaatt</p> <p>ttaagcctga agtgaagatg gtctttgagc tctttccag gttttgtgg</p> <p>tggctatcct ctactgttc tcaatggtt aggtgcaggc gtatcgagg cggaagtggc</p> <p>ggcgtggca cctgcagggc gtccgtgggt ggaaccccaa ataccggac ccgtcgggag</p> <p>gcagcaacgg cggcacgtgc agcacgcagg ttccactgt gacccgctc agccaggtg</p> <p>cccgcgctc ctccagctc caagccgaag tctccctgt ctgaccacca ggateccagg</p> <p>ggcccaaggc ggccctccc gcccttccc actcaccgcc gcagacgcc gggacagagg</p>	<p>ccccggccatc gccgcctgg tgcgcccgc</p> <p>ccgcgggctc agggcagacc atgcgcccgc</p> <p>tgctggcagg cgcctcgcc tgggcccctg</p> <p>aggaggagtg tgactatgt cagatgatcg</p> <p>cccagctgga gaatgagaca ataggctgca</p> <p>cagccacccc tcggggccag gtagtgtct</p> <p>cctccattca agccgcaat gtaagccgca</p> <p>agcctggccc gtaccccat gcctgtggtt</p> <p>agcagacctt gttctacgt tctgtgaaga</p> <p>tcgccacct tctgtgcgc acagctatcc</p> <p>ggaactacat ccacatgac ctctcatat</p> <p>tcaaaagactt ggccctctt cagagcgggg</p> <p>gctgtaagg agccatggtc tttttccaat</p> <p>tggtgaggg cctctacctg tacacctgc</p> <p>acttctggg gtacatactc atcggtggg</p> <p>ccatcgccag gatccattt gaggtattg</p> <p>ggtggatcat aaaggcccc atctcacct</p> <p>gcatcatccg aatcctgctt cagaaactgc</p> <p>gtccatactc aaggtagcc aggtccacac</p> <p>acatcatgtt cgcctctt cegacaatt</p> <p>tgctgtggg gtctttccag gttttgtgg</p> <p>aggtgcaggc gtatcgagg cggaagtggc</p> <p>ggaaccccaa ataccggac ccgtcgggag</p> <p>ttccactgt gacccgctc agccaggtg</p> <p>tctccctgt ctgaccacca ggateccagg</p> <p>actcaccgcc gcagacgcc gggacagagg</p>	Homo sapiens

469	159973 Vasoactive Intestinal Polypeptide Receptor 1	NP_004615.2	<p> cctgccccgg cgggccagc cccggccctg ggctcggagg ctgcccccg cccctgggtc  tctggtccgg aactcctag agaagcagc cctagagcct gctgggagcg tttctagcaa  gtgagagaga tgggagctcc tctcctggag gattgcaggt ggaactcagt cctagagctc  ctcctccaaa ggccccctac gccaatcaag ggcaaaaagt ctacatactt tcatectgac  tctgccccct gctggctctt ctgccaatt ttgaggaagc aacgggtgga tctccaaaca  aactggtgt gactgaggg cagaaaggtt ctgccccggg aaggtcacca gcaccaaac  cacggtagt cctgaaaatt caccattgct gtcaagttcc tttgggttaa gctattaccac  tcaggcattt gactgaagat gcagctcact accctattct cctttacgc ttagttatca  gctttttaa gtgggttatt ctgagtttt ctgttgaga gcacacctat cttagtggtt  ccccaccgaa gtggactggc cctgggtca gtctgggtgg aggacgtgc aacccaagga  ctgagggact ctgaagcctc tgggaatga gaaggcagcc accaggaat gctaggtctc  ggactaagcc tactgtctc ccaagtctca gtggcttcac ctgtcaagtg gcatctgtca  caccagccat acttatctct ctgtgctgtg gaagcaacag gaatcaagag ctgcccctct  tgtccacca cctatgtgc aactgttga actaggtca gagatgtgca cccatgggct  ctgacagaaa gcagatacct caccctgcta cacatacagg attgaactc agatctgtct  gataggaatg tgaagcacg gactcttact gctaaacttt gtgtatcgta accagccaga  tctcttggt tattgttta ccaattgtat tattaatgcc attatctga attccccctg  ccacccacc ctcctggcg tgtgctgag gaggcctcca tctcatgtat catctggata  ggagcctgct ggtcacagcc tctctgtct gcccttacc ccagtggcca ctacgttcc  taccacacc tctgccagaa gateccctca ggactgcaac aggttgtgc aacaataaa  gttgcttg a </p>	Homo sapiens
470	160040 Vasoactive Intestinal Polypeptide Receptor 2	NM_003382	<p> cgggacgagg ggcgcccc cgcgctcggg gcgctcggct acagctgcgg ggcccagagt A  ctcgcgcac tcgctcccg ccatgctgg agcgcgcgga acccgggga cctaggacgg  agcgcgcggg cgctggcggg ccccggcac gctgagctcg gtagcgagc gctgctgctt  cccgcgctgc tgacctgctg gctgctgcc cccgtgaaca gattcaccc agaatgccga  tttcatctgg aaatacagga ggaagaaaca aaatgtacag agcttctgag gtctcaaca  gaaaaacaca aagcctgacg tggcgtctgg gacaacatca cgtgctggcg gctgccaat  gtgggagaga ccgtcacggt gccctgccc aagctcttca gcaatttta cagcaaaagca  ggaacataa gcaaaaactg tacgagtgc gtaggttcag agcgttccc agattcgtc  gatgctgtg gctacagcga cccggaggat gagagcaaga tcacgtttta tattcgttg  aaggccattt ataccctggg ctacagtgc tctctgatgt tcttgcaac aggaagcata  attctgtgcc tcttcaggaa gctgcactgc accaggaatt acatccacct gaacctgtc  ctgtccttca tctgagagc catctcagtg ctggtcaagg acgacttct ctactcagg </p>	Homo sapiens

471	160040 Vasoactive Intestinal Polypeptide Receptor 2	NP_003373.1	<p>tctggcagct tgcactgcc tgaccagcca tctctctggg tgggtgcaaa gctgagcctg gtcttctctg agtactgcat catggccaac ttcttctggc tgctgtgga ggggctctac ctccacacc tctgtgtggc catgtccccc ctagaagggt gcttctggc ctacctcctg atcggtggg gctccccac cgtctgcac cgtgcatgga ctggggccag gctctactta gaagacacc gtgtgtgga tacaacgac cacagtgtg cctgggtgggt cacaagaata cggattttta ttccatcat cgtcaatttt gtcttttca ttagtattat acgaattttg ctgcagaagt taacatcccc agatgtcggc ggcaacgacc agtctcagta caagaggctg gccaagtcca cgtctctgct tatcccgctg ttccggcgtc actacatggt gtttggcctg tttcccatca gcatctctc caaataccag atactgtttg agctgtgct cgggtcgttc cagggcctgg tgggtggcgt cctctactgt ttctgaaaca gtgaggtgca gtgcgagctg aagcgaatat ggcaagcgg gtgcccagcc cgtcccgca gccgggatta cagggtctgc ggttctctct ttcccaaaa cggctcggag ggccctctgc agttccaccg cgcgtccccg gcccagtcct tctgcaaac ggagacctcg gtcatctagc cccacccctg cctgtcggac gcggcgggag gccacgggt cggggcttct cgggggctga gacgcgggt tctcctctcc agatgcccg gacccgtgtc gggaaggta cgcgggtcct gactccgta agctggtgtg ccactaaacc ccataacctg</p>	<p>LLRSQTEKHK ACSGWDNIT P KNCTSDGWE TFPDFVDACG YSDPEDESKI FRKLHCTRNY IHLNLFSLFI LRAISLVVKD YCIMANFFWL LVEGLYLHTL LVAMLPPRR CWDNDHVSF WWVIRIPILI SIIVNFVLF LLIPLFGVH YMVFAVFPIS ISSKYQILFE RSDRPTSPAS RYRVCGSSSF SHNGSEGAIQ</p>	Homo sapiens
472	160055 Motilin Receptor (GPR38)	NM_001507	<p>atgggcagcc cctggaacgg cagcgacggc cccgaggggg cgcgggagcc gccgtggccc A ggctgccc cttgcgacga gcgcgctgc tcgcccttcc cctggggggc gctgggtgccg gtgaccgctg tgtgcctgtg cctgttcgtc gtccgggtga gcggcaacgt ggtgaccgtg atgctgatcg ggcgctaccg ggacatgcgg accaccacca acttgtacct gggaagcatg gccgtgtccg acctactcat cctgtcggg ctgcccgttcg acctgtaccg cctctggcgc tcggggccct ggggtgtcgg gccgtgctc tcggcctgt cctctacct gggaagggc tgcacctacg ccacgctgct gcacatgacc gcgtcagcg tcgagcgcta cctggccatc tgcggcccg tccggcccg cgtcttggt acccggcgcc gcgtccgcgc gctcatcgct gtgctctggg ccgtggcgtc gctctctgcc ggtcccttct tgttctggt gggtctgag caggaccccg gcatctccgt agtcccgcc ctaaatggca cgcgcggat cgcctctcgc cctctgcct cgtcgccgc tctctggct tcgggggccc caccgcgc ggcgcgtcg gggcccaga ccgcgaggc cggcgcgctg ttccagccgc aatgcggcc gagecccgcg cagctggcg cgtgcgtgt catgctgtg gtacaccgc cctacttct cctgcccctt ctgtgctca gcatctcta cgggctcat cggcgggagc tgtggagcag ccggcgccg ctgcgagggc cggccgcctc gggcgggag agagggcacc ggcagaccgt ccggtcctg ctggtggtg ttctggcatt tataattgc tgggtgccc tccacgttgg cagaatcatt tacataaaca cgggaagatt cgggatgatg tacttctctc agtactttta catcgtcgt</p>	<p>IHPECRFHLE IQEETKCTE NFYSKAGNIS KNCTSDGWE LATGSIILCL FRKLHCTRNY GCKLSILFLQ YCIMANFFWL AARLYIEDTG CWDNDHVSF SOYKRLAKST LLIPLFGVH EVQCELKRW RSDRPTSPAS</p>	Homo sapiens

473 160055 Motilin Receptor (GPR38) NP\_001498.1 Homo sapiens

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MGSPWNGSDG PEGAREPPWP ALPPCDERRC SPFPLGALVP VTAVCLCLFV VGVSNGVTV P  
MLIGRYRDMR TTTNLYLGM AVSDLLILG LPFDLYRLMR SRPWVFGPLL CRLSLYVGE  
CTYATLLHMT ALSVERYLAI CRPLRARLV TRRRRALIA VLWAVALLSA GPFLFLVGE  
QDPGISVPG LINGTARIAS PLASSPPLWL SRAPPPSPS GPETAEEAAL FSRECRPSPA  
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LVVLAFLIC WLPFHVGRII YINTEDSRMM YFSQYFNIVA LQLFYLSASI NPILYNLISK  
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474 160059 G Protein-coupled Receptor GPR40 NM\_005303 Homo sapiens

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taa

475 160059 G Protein-coupled Receptor GPR40 NP\_005294.1 Homo sapiens

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476 160189 G Protein-coupled Receptor GPR54 NM\_032551 Homo sapiens



477	160189	G Protein-Coupled Receptor GPR54	NP_115940.1	<p> caccgcctgt caccgggccc gcgcgcctac tgcagtgagg ccttccccag ccgcgccttg  gagcgcctc tgcactgta caacctgctg gcgctgacc tgcctgcgct gctgcgccac  tgccctgct atcgcccat gctgcgccac ctgggcccgg tgcgctgag cccgcgccc  gccgatagc cctgcaggg gcaggtgctg gcagagcgcg caggcgccgt gcgggccaag  gtctcgccg tggtagcgc cgtggtcctg ctcttcgccc cctgctggg cccatccag  ctgttcttg tgcagaggc gctgggcccc gcgggctctt ggcaccaccg cagtaaccg  gctacgcgc ttaagacctg ggtcactgc atgtctaca gcaactccgc gctgaaccg  ctgctctacg ccttctggg ctgcacttc cgacaggcct tccgcgcgt ctgccccgc  gcgcgcgc gcccccgcg ccccgccgg cccggaccct cggaccccc agccccacac  gcggagctg acccctggg gtcccacccg gcccgcgaa gccaggagg tctctga  agtggctgg ccgcgcgcg gctgtgcctc ctgggggagg acaagcccc  mhtvatsgpn aswgapanas gcpccganas dgpvpsprav dawilvplffa almlglvgn  slviyvicrh kmrtvtnef ianlaatdvt flccvpfta llylplgmvl gdfmckfvny  iqovsvqatc atlamsvdr wyvtvfplra lhrtrpral avslsiwvgs aavsapvlal  hrlspgpray cseafpsral erafalylll alylpllat cacyaamlrh lgrvavrpp  adsalqovl aeragavrak vsrlvaavvl lfaacwgpiq lflvloalgp agswhprsy  ayalktwhc msysnalnp llyafllgshf rqafrvrcpc aprrrprpr pgpsdpapah  aelhrlgshp aparaqkpgs sglaaarglcvg lgednapl  ccggcgccac gtgcctgctg ctgcgcgcct acgtgacggc gcattgtcat gcaactgctg a  acctatcatg agaccctgct gctgctcaca ctgtatggaa cccacatctg cctacactgc  cacctggtag caactgctct acttcttcta tgatgtcatc tgactgtctg tacatgctag  actgcgctat tcacgggac cttgacaaact ttatcagcca gactgccccg ggcggctgcg  atgctgtggt ccattacttg ctaaggacca gaccgccccg gcacatgcgc ctctcttcc  ttctgtgaca ccagcggtt cataatcatt accacgggtg atagccagac tgctgcgagc  aacccggcac cctgcagcca agcctgagct ttacggcaca ccagctgagg gcaaaagactt  ggcccatgtg tcccaactcag tgccttacac ccagctgagg t  cagcctctc acagctcccc atagcttggg cctgcggcc cctcctccag gaccgaggg a  ctcccaagg aaactcagg gtgtgctggt cccaatgtca gtgaaccca gctggggggc  tgccccctcg gagggggtca ccgagtgcc taccagtgac tggagagaga tccacaactg  gaccgagctg ctgacctct tcaaccacac ttgtctgag tgcacgtgg agctcagcca  gagcaccag cgcgtggtcc tcttgcct ctacctggcc atgttctgg ttgggctggt  ggagaacctc ctggtgatat gcgtcaactg gcgcggctca ggcggggcag ggctgatgaa  cctctacatc ctcaacatgg ccacgcgga cctgggcat tctctgtctc tgccccgtg  gatgctggag gtacgctgg actacacctg gctctggggc agcttctct gccgcttcac  tcaactctc tactttgtca acatgtatag cagcatcttc tctctggtg gctcagtg  cgaccgctat gtcacctca ccagcgctc cccctctgg cagcgttacc agcaccagat  gcggcgggcc atgtgtgcag gcatctgggt cctctcgcc atcatccgc tgcctgaggt  ggtccacatc cagctggtgg agggccctga gcccattg ccttctatgg caccttttga  aacgtacagc acctggggcc tggcggtggc cctgtccacc acctcctgg gcttctgct  gccccttctc ctcatcacg tcttcaatgt gctgacagcc tgcgggctgc ggagccagg  acaacccaag agccggcgcc actgcttctg gctgtgcgcc tacttgggcc tcttctcat </p>
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(ADMR) LAMFVVGIVE NLLVICVNR GSGRAGLMNL YILNMAIDL GIVLSLPWM LEVTDYTWL  
Homo sapiens

481 160204 G Protein- AX136399  
Coupled  
Receptor RTA  
Homo sapiens

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Homo sapiens  
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485	160210 G Protein- Coupled	NM_004778	<p> atgaatgggg tctcgaggg gaccagaggc tgcagtgaac ggcaacctgg ggtcctgaca A  cgtgatcgtc cttgttccag gaagatgaac tcttccggat gcctgtctga ggaggtgggg  tccctccgcc cactgactgt ggttatcctg tctgcgtcca ttgtcgtcgg agtctggggc  aatgggctgg tgctgtggt gactgtcttc cgtatggcac gcacggtctc caccgtctgc  ttcttccacc tggcccttgc cgatttcatg ctctcactgt ctctgcccac tgccatgtac  tatattgtct ccaggcagtg gctcctcggc gactgtgtct gcaaaactca caccacttt  gtgttctca gctacttctg cagtaactgc cctctgtct tcatctctgt ggaccgttgc  atctctgtcc tctacccctg ctgggcccgt aaccacgca ctgtgcagcg ggcgagctgg  ctggccttgg ggtgtggtc cctggccgcc gcttctgtct ctgagcact gaaattccgg  acaaccagaa aatggaaatg ctgtacgcac tgctacttgg cgttcaactc tgacaatgag  actgcccaga ttggattga aggggtcgtg gagggacaca ttataggac cattggccac  ttcctgctgg gcttctcggg gcccttagca atcataggca cctgcgcca cctcatcgg  gccaagctct tgcggaggg ctgggtccat gccaaccggc ccaagaggct gctgctggtg  ctggtgagcg ctttctttat cttctggtcc ccgtttaacg tgggtctgtt ggtccatctg  tgcgacggg tgatgctcaa ggaatctac caccgccga tctgctcat cctccaggct  agcttgcct tgggctgtgt caacagcagc ctcaaccct tctctactg cttcgttggc  agagatttcc aagaaaagt ttctcagctc tgacttctg ccctggcgag ggcgtttgga  gaggaggat tctgtcatc ctgtccctcgt ggcaacgccc cccgggaatg a  MNGVSEGTG CSDRQPGVLT RDRSCSRKMN SSGCLSEEVG SLRPLTVVIL SASIVGVLG P  NGLVMTVVF RMARTVSTVC FFHLALADEM LSLSLPIAMY YIVSRQWLLG EWACKLYTF  VFLSYFASNC LLVFISVDRC ISVLYPVWAL NHRIVQRASW LAFGWLLAA ALCSAHLKFR  TTRKWNCGTH CYLAFNSDNE TAQIWIEGVV EGHIGTIGH FLGLFLGPLA IIGTCAHLIR  AKLLREGWVH ANRPKRLLV LVSAFFIFWS PFNVVLLVHL WRRVMLKEIY HPRMLLIQA  SFALGCVNSS INPFLYFVG RDFQEKFFQS LTSALARAFG EEEFLSSCPR GNAPRE  cagcctccct cttccacctc tgtctgcccg ctgctcttgg tctagtgtct gtcaggagct A  gactgcctcc agggctggaa tctgtgtctc cctctgtgcc cagagcccca cgatgtcggc </p>	Homo sapiens

Receptor  
GPR44  
(CRTH2)

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[illegible]

160217 G Protein- NP 005674.1 MSQNTSGDC LFDGVNELMK TLQFAVHIPT FVLGLLLNLL AIHGSTFLK NRWPDYAATS P

491 160219 G Protein- NM 005301 atgaatggca cctacaacac ctatgactcc agggacctca cctgaccccc agcgatcaag A

160219 G Protein-  
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[illegible]

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494	160221 G Protein-Coupled Receptor GPR27	NP_061844.1		atgggtccctc acccttctgt gctctgtctc ctccccctgg tgcgagccac cgagccccac A gaggcccggg ccgacgagca gagcgcgag gagggccctgg ccgtgcccac tgcctcgcc ttcttctctt ggaacaacta cacttctcc gactggcaga actttgtgg caggagcgcg tacggcgctg agtcccagaa cccacgggtg aaagccctgc tcattgtggc ttactcttc atcattgtct tctcactctt tggcaacgtc ctggctgtc atgtcatctt caagaaccag cgaatgcact cggccaccag cctcttcac gtcaacctgg cagttgccga cataatgatc acgtgtctca acacccctt cactttggtt cgttttgtga acagcacatg gatattggg aaggcgatgt gccatgtcag ccgctttgcc cagtactgct cactgcactg ctacgactg acactgacag ccattgcggg ggatcgccc caggtcatca tgcacctt tgaaccccg atctcaatca caaagggtgt catctacatc gctgtcatct gaccatggc tacgttctt tcaactccac atgtatctg ccagaaatta ttacattca aatacagtga ggacattgtg cgctccctct gcctgccaga ctccctgag ccagctgacc tctctggaa gtacctggac ttggccaact tcactctgt ctacatctg cctcctctc tcactctgt ggcctacgt	Homo sapiens
495	160222 G Protein-Coupled Receptor GPR72	NM_016540			Homo sapiens

496	160222 G Protein- Coupled Receptor GPR72	NP_057624.1	<p>cggtgtggcca agaaactgtg gctgtgtaat atgattggcg atgtgaccac agagcagtac  tttgccctgc ggcgcaaaaa gaagaagacc atcaagatgt tgatgtgggt ggtagtcctc  tttgccctct gctggttccc cctcaactgc tacgtccctc tctgttccag caaggtcatc  cgcaccaaca atgcccctcta ctttgccctc cactgggttg ccatgagcag cacctgctat  aacccttcca tatactgctg gctgaacgag aacttcagga ttgagctaaa ggcattactg  agcatgtgc aaagacctcc caagcctcag gaggacgggc aacctcccc agttccctcc  ttcagggttg cctggacaga gaagaatgat ggccagaggg ctcctctgc caataacctc  ctgcccacct cccaaactcca gtctgggaag acagacctgt catctgtgga acccattgtg  acgatgagtt agaagaggtt gggaaagagg agtgggagg gtctgtctcc acctgaggca  gggaaagaga gcctattctc acacatgac ttccagagtgc tggaaacaca ctcctgcaga  aggctgtagg actcttgaat tctaggaaa ctgtccagcc tctagcccc atgtgatgtg  aaaactaaaa ggcaccacca actagacatg tgttcataaa ttcccatcta agaaacactg  ggaggcacag cagcctgtat ccttgaggaa gaggagcggg gacaaacttg gccagatgg  gggctgaatc attcaactgc ctccatctgt ggggcagctg ctgctctaca gcccttcccta  ctagactgag catcccgaag gagacctaaa tcatactttg ggtgtggtga ccagatgca  cagagctctg cttgaaaacag gtacacgggc cagggaatg ccagcaa</p>	Homo sapiens
			<p>MVPHLLLLCL LPLVRATEPH EGRADEQSAE AALAVPNASH FFSWNNYTF DWQNFVGRRR P  YGAESQNPV KALLIVAYSE IIVESLEGV LVCHVIFKNQ RMHSATSLFI VNLAVADIMI  TLINTPFTLV RFVNSTWIFG KGMCHVSREA QYCSLHVSAL TLTALIAVDRH QVIMHPLKPR  ISITKGVIIY AVIWTMATFF SLPHAIQKQL FTFKYSIEDIV RSLCLPDFFE PADLFWKYLD  LATFILLIYL PLLIISVAYA RVARKIWLGN MIGDVTTEQY FALRRKKKKT IKMLMLVWVL  FALCWFPINC YVLLLSKVI RTNNALYFAF HWFAMSSTCY NPFIYCNLE NFRIELKALL  SMCQRPPKPKQ EDGQSPVPS FRVAWTEKND GQRAPLANNL LPTSQLSGK TDLSSVEPIV  TMS</p>	
497	160223 G Protein- Coupled Receptor G2A	NM_013345	<p>gggaggggtg cgaggctagc cagcaggcg gggccctggg tcatttttaa ctctcagagt A  gaacgtcttg ataggaccga caagacgcat gacatgtact tagatagctt atcttagagc  cacactgaga ttggaacccg caaaatatgc caggaggaa ggtgagcaag ggacacgaca  ctcaccggga taaacccaac aagcgcagcg aggtgtggg gaaacgggan ccttgcaac  cgccggggga aggtgggcn ccgccaccac cgtggaagaa cagcggggan gcaccccacg  agatgagacg gaactgccgt gagatccagc aatnccnact gtgggtctga cccaggatan  cggaaagcag gacgtgaac agccctctc atgttcttga caccgtcatt ctcagcagct  cagctaaggc acagaggcag ccgagcgtct gtcagcagag tctgggctga gcagaacacg  ccacacgcca cagccacac gccacacgtg caggattgct caagatggaa gggcacagtg  gaatatatat atatatttat attttggcg agaccctgga ggacacactg aatacaatgg  aataccatcc cgcctttgaa aggaaggga atctctggc acgtgcac aggtgggagc  ttgaggacac tgtggtgagt ggagcagtg agacacggaa agacacacgc tgaagacacg  cagagatgcc caccacgtg gggaggtgac agggagccc agcgcacaga gacaaagtgg  aatggaggcc tgggggctgg gagcaaatgc ggagcagtg ctctctgggg cagagctctc  gtttgggaag atgagaaggt tctgccgacg gatgctggcg atggttgag aagaatgtga  atgtgccccaa tgctactgaa aaacgggtac aatggaaaacg ccacccaggt gaccaccact  gccccgtggg cctcctctgg cctctcggc aagacctgca acaacgtgtc cttcgaagag</p>	Homo sapiens



498	160223	G Protein- Coupled Receptor G2A	NP_037477.1	MCPMLLKNGY CLTAWLALQ IFFCNIYVSI EDKETCFDML KHSALAVVVI GVADPIIYVL RPVHPPGSPC	NGNATPVTTT VLOGNVIAVY LFLCCISCDR QMDSRIAGYY FLVCFAPYHL ATDHSRQEV PAKRLIEESC	APWASLGLSA LLCLALCELL FVAVVYALES YARFTVGFAI VLLVKAAAFS RIHKGWKEWS MKTDTVRLTH	KTCNNVSFEE YTGTLPLWVI RGRRRRTAI PLSIIAFTNH YYRGDRNAMC GLEERLYTAS SRDTEELQSP	SRIVLVVVS YIRNQHRWTL LISACIFILV RIFRSIKQSM GLSAAQKAKV VVFCLCLSTVN VALADHYTFS	AVCTLGVFAN P GLLACKVTAY GIVHYPVFQT GLSAAQKAKV VVFCLCLSTVN VALADHYTFS	Homo sapiens
499	160224	Endothelin Type B Receptor- Like Protein 2 (ETBR-LP- 2)	NM_004767	CGGGTACAGG CTGTGCCCC GGGGTGGCC TCCAAGAGG TGGGCGGAGT GCCACCAACC GGCAATCTGA	GGGCCCAAGA TGGTGTCTC CCCTGCACCT GCACCGAGGA ACCCCGGCC CTAACCCCGA CAGGGGCACC	GCTGGGCTGG TCTTGCTGTG GGCAGGCAC TGAGGAGGCC CATTCAACCT CAAGGATGGG AGGGCAGAGG	CTCATCCAGC TGGGGCTAAG CCCAGGAGCA AGCAGTATGT AGCAACCAA ACAGTGGGCA AGAACCCCT	CATCGGGTGG A CAGGTCTCT GCAGAGCCGA GCCTGAGGAG GCCCTTGGTG GGAACCTGAGG GTATCCGGTGG	Homo sapiens	

500	160224 Endothelin Type B Receptor- Like Protein 2 (ETBR-LP- 2)	NP_004758.1	<p>accgagagct cctacagatgc ctatgccatc atgtctctgg cgtggtggtg gtttgcgggtg  ggcattgtgg gcaacctgtc ggtcatgtgc atcgtgtggc acagctacta cctgaagagc  gcctggaact ccatccttgc cagcctggcc ctctgggatt ttctggtcct ctttttctgc  ctccctattg tcatcttcaa cgagatcacc aagcagaggg tactgggtga cgtttcttgt  cgtgccgtgc ccttcattga ggtctcctct ctgggagtca cgactttcag cctctgtgcc  ctgggcatlg accgcttcca cgtggccacc agcacctgc ccaaggtgag gccatcagag  cgggtgccaat ccatactggc caagttggct gtcatctggg tgggtcccat gacgctggct  gtgctgagc tctgtgtg gcagctggca caggagcctg cccceaccat gggcacccctg  gactcatgca tcatgaaacc ctacgccagc ctgcccaggt cctgtattc actggtgatg  acctaccaga acgcccgcgt gtggtgtgtac ttgggtgctt acttctgctt gccatcctc  ttcacagtca cctgccagct ggtgacatgg cgggtgcgag gccctccagg gaggaagtca  gagtgcaggg ccagcaagca cgagcagtggt gagagccagc tcaacagcac cgtggtgggc  ctgaccgtgg tctacgcctt ctgacacctc ccagagaacg tctgcaacat cgtggtggcc  tacctctcca cggagctgac ccgccagacc ctggacctcc tgggacctcat caaccagttc  tccaccttct tcaaggggcg catcacccca gtgctgctcc ttgtcatctg caggccgctg  ggccaggcct tctgggactg ctgctgtgctg aggtgtgctg aggtgtgctg cggggtctcg  gaggcctctg ctgccaatgg gtggtgacaac aagctcaaga cggaggtgtc ctcttccatc  tacttccaca agcccaggga gtacaccccca ctctgcccc tgggacacac ttgctgaggg  ccagtagggg gtggggaggg agggagaggg cgccaccccc gccggtgtct gctgttcttt  ccccataggt ctgtctttgt tgctgtctt gctgtctagg gatggacttg gttcctcttg  tcaaggtttg ggaatccc</p>	<p>GRHRAETQEQ QSRKRGTEG EEAKGVQQYV P  KDGRTDPSGQ ELRNLGTAP GQRLQIQNPL  VMCIVHWSY LKSAWNSILA SLALWDFLVL  VSSLGVTTF LALGIDRFH VATSTLPKVR  QLAQEPAPTM GTLDSICMKP SASLPESLYS  VTWRVRGPPG RKSECRASKH EQCESQLNST  RQTLDLLGLI NQSTFFKGA ITPVLLLCIC  SDNKLKTEVS SSIYFHKPRE SPPLPLGTTP</p>	Homo sapiens
501	160225 Sphingolipid Receptor Edg6	NM_003775	<p>gagtcagccc ccggggggagg ccatgaaacgc cagggggacc ccggtggccc ccgagtcctg A  ccaacagctg cgggccggcg ggcacagccg gctcatgtt ctgcactaca accactcggg  ccggctggcc gggcggggg ggccggagga tggcgccctg gggccctgc gggggtgtc  ggtggccgcc agctgcctg tgggtctgga gaacttctg gtgctggcg ccataccag  ccacatgcgg tcgcgacct ggttctacta ttgctgtgtg aacatcacg tgagtgaact  gctcacgggc cgccctacc tggccaacgt gctgctgtcg gggccccgca ccttccgtct  ggcgccggcc cagtgttcc tacgggaggg cctgtctctt accgccctg ccgctccac  cttcagcctg ctcttactg caggggagcg ctttgcacc atggtgcggc cgggtggccga  gagcggggcc accaagacca gcgcgtcta cggcttcatc ggcctctgt ggtgctggc  cggcgtgctg gggatgctg ctttgcctgg ctggaactgc ctgtgcgct ttgaccgctg  ctccagcctt ctgccccctt actccaagcg ctacatcctc ttctgcctgg tgatcttgcg</p>	<p>GRHRAETQEQ QSRKRGTEG EEAKGVQQYV P  KDGRTDPSGQ ELRNLGTAP GQRLQIQNPL  VMCIVHWSY LKSAWNSILA SLALWDFLVL  VSSLGVTTF LALGIDRFH VATSTLPKVR  QLAQEPAPTM GTLDSICMKP SASLPESLYS  VTWRVRGPPG RKSECRASKH EQCESQLNST  RQTLDLLGLI NQSTFFKGA ITPVLLLCIC  SDNKLKTEVS SSIYFHKPRE SPPLPLGTTP</p>	Homo sapiens

502	160225	Sphingolipid NP_003766.1	Receptor Edg6	<p> cggcgtcctg gccaccatca tgggcctcta tggggcccatc tccgcctgg tgcaggccag  cgggcagaag gcccacgccc cagcggccc cgcgcctgc cgcgcctgc tgaagacggt  gctgatgac ctgctggcct tccctggtg cctggggccc cctctgggc tctgctggc  cgagctcttt ggtcccaacc tctgggccc gagtacctg cggggcatgg actggatcct  ggccctggcc gtctcaact cgccgtcaa gcttcctcg ctgcgggtgt ctcggctgg gcatgcgag  ggtgtgcaga gccgtgctca ggttcctcg gggcgtcga ggtcactcc ggagcttcca ccaccgacag  gcccggggac tgctggccc gtttcggcga gtttcggcga ctcagcttcc ggatgcggga  ctctctgagg ccaagggaca gtttcggcga gtttcggcga ctcagcttcc ggatgcggga  gcccctgtcc agcatctcca gctgcggag catctgaagt tgcagcttcc cgtgtggatg  gtcagccac cgggtgcgtg ccaggcagg cctcctgggg tacagggaagc tgtgtgcacg  cagcctcgcc tgtatggga gtaggggaa ggcaggccc ccatggtctt cccggtggcc  tctcggggct tctgacgcca aatgggcttc ccatggtcac cctggacaag gagtaacca  cccactcc ccgtaggagc agagagcacc ctggtgtggg ggcgagtggt tcccacaac  ccgcttctg tgtgattctg gggaaagtc cggccctctc tgggcctcag tagggctccc  aggctgcaag ggtggactg tgggatgcat gccctggcaa cattgaagt cgtcatggt  aaaaaa </p>	Homo sapiens
503	160228	T-Cell Death-Associated Gene 8 (GPR65)	NM_003608	<p> atgaacagca catgtattga agaacagcat gacctggatc actatttgtt tccatttgtt A  tacatctttg tgattatagt cagcattcca gccaatattg gatctctgtg tgtgtcttcc  ctgcaaccca agaaggaaag tgaactagga atttacctct tcagtttgtc actatcagat  ttactctatg cattaactct ccttttatgg attgattata cttggaataa agacaactgg  actttctctc ctgccttggt caaaggaggt gcttttctca tgtacatgaa gttttacagc  agcacagcat tctcacctg cattgccgtt gatcgggtatt tggctgttgt ctaccctttg  aagttttttt tctaaggac aagaagaatt gcaactatgg tcagcctgtc catctggata  ttggaaacca tcttcaatgc tgcctgttg tgggaagatg aaacagttgt tgaatatg  gatgccgaaa agtctaattt tactttatgc tatgacaaat accctttaga gaaatggcaa  atcaactca actgtttcag gactgtaca ggtatgcaa taccttttgt caccatcctg  atctgtaacc ggaagtcta ccaagctgtg cggcacaata aagccacgga aaacaaggaa  aagaagagaa tcataaaact actgtcagc atcacagtta ctttgtctt atgctttact  ccctttcatg tgatgttgtt gattcgtgc atttagagc atcgtgtgaa ctctgaagac  cacagcaatt ctgggaagcg aacttacaca atgtatgaa tcacggttgc attacaagt  ttaaattgtg ttgctgaccc aattctgtac tgttttgtta ccgaacagg aagatatgat  atgtggaata tattaataat ctgcactggg aggtgtaata catcacaag acaaaagaaa  cgcatacttt ctgtgtctac aaagataact atggaattag aggtccttga gtag </p>	Homo sapiens

504	160228	T-Cell Death- Associated Gene 8 (GPR65)	NP_003599.1	MNSTCIEEQH LLYALTPLW KFFFLRTRRI INLNLFRTCT PFHVMLLIRC MWNILKFCGTG	DLDHLYFPPIV IDYTWNKDNW ALMVSLSIWI LETIFNAVWL ICNRKVYQAV HNSGKRTYTT RILSVSTKDT	YIFVIIVSIP TFSPALCKGS WEDETVVEYC RHNKATENKE MYRITVALTS MELEVL	ANIGSLCVSF AFLMYMKFYS DAEKSNTFLC KKRIIKLLVS LNCVADPILY	LQPKKESELG STAFLTICIAV DYKYPLEKWQ ITVTFVLCTF CFVTETGRYD	P Homo sapiens
505	160300	Encephalopsi n	NM_014322	cgagcccccgc ctcgggggaac ggggccggcg gcgcctggcg gctcgtcttc catcagcctc cctgaggaac cctcttcggg cgtggtccat gctctactca cgtacacgga tgtgtcttcc tggccatatt agtgatcaag caccttctctg tggtcacctg tgtatataat gcttctgtgc aagtgaatg aaaagtgcac agtgcagac tttgtaggaa ctttcatcat aaccttgtgg ttgaacaaaa tgcacacgat tataattttt tactgtaaaa tttgtactgt taattctaga gtatgacaaa cagaggaatc gactcaaaagc tgtatatataa attccacaca	cgcaagctga cgagcgggcg ccggcgggga ctgctgctgg tactacaagt agcgacctgc ggctgggtgt attgtttcca gccagagtga ctggcggtgg ctgtgactgca ttatttcttg ctatatcca atttataaat gtctgtttgga gtcactccaa ccactctctt ctccgactgc tgagggtgca ccattgtgat tccaactctt agcgacaaaa tgaaggatgg cctcctgaag tccagcagga acaaattctt gggcatctaa aaattactct ataactgtcg tggaactcat atgaaaaaga gaggaatttc tacaaggcaa tcttttctct gccaggggagt tatatatattac	gcgcctccgc gccacggcta cactgagccc gtccatttgg tcacagggct tgggtccct gggacacctg ttgccacctt tcaatttttc caggagcacc ctgtggactg ctgtggactg gtgcctgggt ttcgaaatgct atgaaaagaa tgccctatat caatatctat atgtctctcat tgagggtgcca ccattgtgat cttcactcat caacgaaaag caacgaaaag aagaagtgtc aatccgaatt ttaaattcaac catcatcatc attttccaaa cgtaacacatg tcagtgtcat aatcctctct agagacaaat actcccatac tgttttgttg tctaagacgc atataccgcg	ccgccaggcg ctgggacggc cgcgccctc gctgctgggc ccgcactccc cttcggggtc gggctgcgtg aacctgtctg ctgggcttgg tctcctggga gaaatccaa ggtgccctg tcgtgtgtg actggcctg atgtgctttt cgtgatctgc ttcttggtgg tgtttcgtac ctctttgcta gtacagaaa gagggctgct gtcacagaaa ttttatcatc ccaaagtgtg tggggcctta tggaataccc gcccataatg gggtgcttta ttctaagtgt acacgtaaatg acacgtaaatg tgtaagtag gtcctatatc gttggaacaa gttggaacaa ttgaatcctt atttgtcttc tttctctaaa cagctctttg taataaattt	gggccatgta cgggcgctga gcacctaaga acctgctgggt tcctgggtcaa tcgtgtcctg ttagcgggcag gttacattcg cctacattctg agggccatta tggaacaggt acatcctgga attcctcctt ccatttgcta agacaattca taagtatat ttaatgggtca aatcgaaacac cccttttgca cagcagctgg ggccaaagaa aatcaactgtc aagttcgtcc cacttttgga atatcaaacag caggaagagg aaaccacttg tcaattcaaa gaaaatacct catttttctc ctagaacata ctgaattttt atcaagagga tatagttgca gtcagctctg agaccagcac tgccctaca tctttgtcga attccctgt taaaaaaaa	A Homo sapiens

[illegible]

510  
160314 G Protein-  
Coupled  
Receptor  
GPR103  
ENSMRPT2217 53  
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GITMMRKKAK FSLRENPEVE TKGEAFSDGN IEVKLCEQTE EKKKLKRHLA LFRSELAENS

511 160317 Neuropeptide NM\_004885  
FF 2  
Receptor

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514	160324	G Protein- Coupled Receptor GPR86/GPR94/ P2Y13	NP_076403.1	<p> MNTTVMQGFN RSECRPRDTR IVQLVFPALY TVVFLTGILL NTIALWVFWH IPSSSTFIY P  LKNILVADLI MTIMLPFKIL SDSHLAPWQL RAFVCRFSSV IFYETMYVGI VLLGLIAFDR  FLKIIRPLRN IFLKKPVFAK TVSIFIWFEL FFISLPNMIL SNKEATPSSV KKCSALKGPL  GLKWHQWVNN ICQFIFWTFV ILMLVFYVVI AKKVYDSYRK SKSKDRKNK KLEGVFVWV  AVFFVCFAPF HFARVPYTHS QTNNKTDCLR ENHSSQTDNI TLG  KKFTEKLPCM QGRKTTASSQ </p>	Homo sapiens
515	160329	Proteinase- Activated Receptor 4	NM_003950	<p> ctccacggg ctggctggca agcggccctg ctgggtctgc gggggcagg gcagccttcc A  tggttatct ccaccggcg gatctgctcg tccgcctcgg cccagaagc tggggctcag  ggtccggcga gccaggagc ctgaggccac agcccagagc agcctgagtg cagtcagtgc  ggggcgactg ctccgtggc cccctgggtgct ggggttcagc ctgtctggcg gcacccagac  ccccagctc tacgacgaga gcgggagcac cggaggtgggt gatgacagca cgcctcaat  cctgcctgcc ccccgcggt acccaggcca agtctgtgcc aatgacagtg acaccctgga  gctcccgagc agtcacagg cactgccttct gggctgggtg cccaccaggc tgggtcccg </p>	Homo sapiens



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160388 Latrophilin- NP\_055736.1

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Homo

sapiens

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				<p>GDQVGPCRSL GSRGRGSSGA CAPMGWLCPS P</p> <p>IPLPPAPEG PWSCRLLGIG</p> <p>RSPEESLGR RKRNVNTAPQ</p> <p>DALFDSRSNQ FFSLDPVTGA</p> <p>DTNHDVPFE QOEYKESLRE</p> <p>EIDPRSGVIR TRGPVDREEV</p> <p>DDNDNAPQFS EKRYVVQVRE DVTGPAPVLR</p> <p>ACTGALDWVS PLDYETTKY TLRVRAQDGG</p> <p>QATVLESVPL GYLVLHVQAI DADAGDNARL</p> <p>EARHDGTPAL TASASVSVTV</p> <p>TVSAVDRDAH SVITYQITSG NTRNRFSTIS</p> <p>NVTDANTHRP VFQSSHYTVN</p> <p>DADTGAVTTQ AELDYEDQVS</p> <p>QGSVYEDVPP FTSVLQISAT</p> <p>NAPOFLRDSY RENVAQYVLR AYAVDKGMP</p> <p>GIVRTLRRLD ARVATATDPDE GTNAQIMYQI</p> <p>EENSPIGLAV</p>	

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525 160397 Latrophilin- NM\_012302  
2

Homo sapiens

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SEQ ID NO:	LSID	Gene	Source ID	LPID	Peptide	SpeciesName
692	127	5-HT1A Receptor	P08908	595	CAPASFERKNERNAEAKRKM	Homo sapiens
693	127	5-HT1A Receptor	P08908	608	GRIFRAARFRIRKTVKKVE	Homo sapiens
694	127	5-HT1A Receptor	P08908	610	RTPEDRSDPDACTISK	Homo sapiens
695	127	5-HT1A Receptor	P08908	612	RHGASAPAPQPKSVNGE	Homo sapiens
696	128	5-HT1B Receptor	P28222	585	KQTPNRTGKRLTRAQLTID	Homo sapiens
697	128	5-HT1B Receptor	P28222	586	SPGSTSSVTSINSRVPD	Homo sapiens
698	128	5-HT1B Receptor	P28222	598	KVRVSDALLEKKKLMA	Homo sapiens
699	128	5-HT1B Receptor	P28222	599	ANLSSAPSQNCASAKD	Homo sapiens
700	129	5-HT1D Receptor	P28221	577	IKLADSALERKRISAA	Homo sapiens
701	129	5-HT1D Receptor	P28221	588	QEASNRSLNATETSEA	Homo sapiens
702	129	5-HT1D Receptor	P28221	589	RIYRAARNRILNPPSL	Homo sapiens
703	129	5-HT1D Receptor	P28221	590	KAQEEMSDCLVNTSQIS	Homo sapiens
704	130	5-HT1E Receptor	P28566	815	RHLSNRSTDQNSFASC	Homo sapiens
705	130	5-HT1E Receptor	P28566	817	CITEASMAIRPKTITEKM	Homo sapiens
706	130	5-HT1E Receptor	P28566	818	DNDLDHPGERQQISST	Homo sapiens
707	130	5-HT1E Receptor	P28566	2738	CVSDFSSTDPTTEFEK	Homo sapiens
708	130	5-HT1E Receptor	P28566	2739	RIYHAAKSLYQKRGSSR	Homo sapiens
709	131	5-HT1F Receptor	P30939	604	ESGEKSTKSVTSYVL	Homo sapiens
710	131	5-HT1F Receptor	P30939	606	DKCKISEEMSNFLAWLG	Homo sapiens
711	131	5-HT1F Receptor	P30939	864	IAKEEVNGQVLESGE	Homo sapiens
712	131	5-HT1F Receptor	P30939	869	STVRSLSRSEFKHEKSWR	Homo sapiens
713	132	5-HT2A Receptor	CAA01675.1	1106	DAFNWTVDSERNLNSC	Homo sapiens
714	132	5-HT2A Receptor	CAA01675.1	1107	FGQLQDDSKVFKEGSC	Homo sapiens
715	132	5-HT2A Receptor	CAA01675.1	1108	PGSYTGRRTMQGISNEQKAC	Homo sapiens
716	132	5-HT2A Receptor	CAA01675.1	1109	CSMVALGKQHSEEAASKDNSD	Homo sapiens
717	132	5-HT2A Receptor	CAA01675.1	1110	NTIPALAYKSSQLQMGQ	Homo sapiens
718	133	5-HT2B Receptor	P41595	1111	KGIETDVDPNPNITC	Homo sapiens
719	133	5-HT2B Receptor	P41595	1112	CSSPEKVAMLDGSRKDKA	Homo sapiens
720	133	5-HT2B Receptor	P41595	1113	RRSTIGKKSVQTSINE	Homo sapiens
721	133	5-HT2B Receptor	P41595	1114	CNYRATKSVKTLRKRSK	Homo sapiens
722	133	5-HT2B Receptor	P41595	1187	SGLQTESIPEEMKQIVEEQG	Homo sapiens
723	134	5-HT2C Receptor	P28335	1115	CKRNTAEFEENSANPNQDQNA	Homo sapiens
724	134	5-HT2C Receptor	P28335	1116	GHTPEPPGLSLDFLKC	Homo sapiens
725	134	5-HT2C Receptor	P28335	1117	CNYKVEKKPPVRQIPRV	Homo sapiens
726	134	5-HT2C Receptor	P28335	1118	IGLRDEEKVFVNNTTC	Homo sapiens

727	134	5-HT2C Receptor	P28335	1119	RHTNEPVIEKASDNEP	Homo sapiens
728	134	5-HT2C Receptor	NP_000859.1	1826	RNAVHSFLVHLIGLLVWQCD	Homo sapiens
729	134	5-HT2C Receptor	NP_000859.1	1829	CDISVSPVAAIVTDIFNTSD	Homo sapiens
730	134	5-HT2C Receptor	NP_000859.1	1830	DGGRFKFPDGVQNWPAALS	Homo sapiens
731	136	5-HT4 Receptor	CAA73107.1	654	NNIGIDUEKRFKNQ	Homo sapiens
732	136	5-HT4 Receptor	CAA73107.1	655	ESRPQADQHSRMR	Homo sapiens
733	136	5-HT4 Receptor	CAA73107.1	656	CDDERYRPSILGQTV	Homo sapiens
734	136	5-HT4 Receptor	CAA73107.1	657	RDAVECGGQWESQCHPPATS	Homo sapiens
735	136	5-HT4 Receptor	CAA73107.1	2682	VTAKEHAHQIQLQAGASSESRP	Homo sapiens
736	136	5-HT4 Receptor	CAA73107.1	2683	KSFRAFILCCDDE	Homo sapiens
737	136	5-HT4 Receptor	CAA73107.1	2684	VTAKEHAHQIQLQAGA	Homo sapiens
738	136	5-HT4 Receptor	CAA73107.1	2685	KEHAHQIQLQAGA	Homo sapiens
739	136	5-HT4 Receptor	CAA73107.1	2686	VTAKEHAHQIQLQ	Homo sapiens
740	138	5-HT6 Receptor	P50406	649	RTPRPGVESADSRRLATK	Homo sapiens
741	138	5-HT6 Receptor	P50406	650	CPRERQASLASPSLRIS	Homo sapiens
742	138	5-HT6 Receptor	P50406	652	PLFMIRDFKRALGRFLPC	Homo sapiens
743	138	5-HT6 Receptor	P50406	653	RAAAAVNFNIDPAEPE	Homo sapiens
744	139	5-HT7 Receptor	P34969	658	EVTASPTWDAPPDNASGC	Homo sapiens
745	139	5-HT7 Receptor	P34969	659	KAARKSAAKHKFPGFRVE	Homo sapiens
746	139	5-HT7 Receptor	P34969	660	CANILRLKHERKNISIFKR	Homo sapiens
747	139	5-HT7 Receptor	P34969	663	KLAERPERPEFVLRAC	Homo sapiens
748	272	Adenosine A1 Receptor	AA17544.1	8	CHKPSILTYIAFLT	Homo sapiens
749	272	Adenosine A1 Receptor	AA17544.1	9	NGSMGEPVIKCEFEKVISM	Homo sapiens
750	272	Adenosine A1 Receptor	AA17544.1	10	NKKVSASSGDPQKYGKELK	Homo sapiens
751	272	Adenosine A1 Receptor	AA17544.1	11	NDHFCRCQAPPIDEDLPEER	Homo sapiens
752	272	Adenosine A1 Receptor	P25099	286	CQKPPIDEDLPEEKAD	Rattus norvegicus
753	272	Adenosine A1 Receptor	P25099	302	QKPPIDEDLPEEKAD	Rattus norvegicus
754	272	Adenosine A1 Receptor	AA17544.1	303	MPPSISAFQAAYIGIEVL	Homo sapiens
755	273	Adenosine A2a Receptor	P29274	1237	QGNGLPDPVELLSHELKVC	Homo sapiens
756	273	Adenosine A2a Receptor	P29274	1238	MPIMGSSVITVELAIA	Homo sapiens
757	273	Adenosine A2a Receptor	P29274	1239	RSHVLRQEQEPFKAAGT	Homo sapiens
758	273	Adenosine A2a Receptor	P11617	1240	RIRFRQIFRKIRSH	Canis familiaris
759	274	Adenosine A2b Receptor	P29275	676	KDSATNNCTEPWDGTTNES	Homo sapiens
760	274	Adenosine A2b Receptor	P29275	677	CRQLQRTLMDSRRTLQRE	Homo sapiens
761	274	Adenosine A2b Receptor	P29275	678	RNRDRFYTFHKISRYLLC	Homo sapiens
762	274	Adenosine A2b Receptor	P29275	679	CQADVKSGNGQAGVQP	Homo sapiens

763	274	Adenosine A2b Receptor	P29275	680	CVTLFQPAQGKNKPKW	Homo sapiens
764	274	Adenosine A2b Receptor	P29275	2714	MILETQDALVVALELVIAAL	Homo sapiens
765	275	Adenosine A3 Receptor	P33765	683	IFYIRNKLNLNSKE	Homo sapiens
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767	275	Adenosine A3 Receptor	P33765	687	AYKIKKFETYLLILKAC	Homo sapiens
768	275	Adenosine A3 Receptor	P33765	689	TGAFVGREFTAKSLF	Homo sapiens
769	275	Adenosine A3 Receptor	P33765	2296	KRVTTTHRIIWLALGLC	Homo sapiens
770	309	Melanocortin 2 Receptor (adrenocorticotrophic hormone) (MC2R)	CAA46587.1	4	CPRVVLPEEIFFTIS	Homo sapiens
771	309	Melanocortin 2 Receptor (adrenocorticotrophic hormone) (MC2R)	CAA46587.1	5	MGYLKPRGSFETTADDIIDS	Homo sapiens
772	309	Melanocortin 2 Receptor (adrenocorticotrophic hormone) (MC2R)	CAA46587.1	6	RYHSIVTMRRRTVVLT	Homo sapiens
773	309	Melanocortin 2 Receptor (adrenocorticotrophic hormone) (MC2R)	CAA46587.1	7	AFRSPELRDAFKKMIFC	Homo sapiens
774	376	Alpha 1d-adrenoceptor	AAA35496.1	12	RSTTRSLAEGVKRERKASE	Homo sapiens
775	376	Alpha 1d-adrenoceptor	AAA35496.1	13	KEPVPPDERFCGITEEAG	Homo sapiens
776	376	Alpha 1d-adrenoceptor	AAA35496.1	14	RSTEMVQRLRMEAVQ	Homo sapiens
777	376	Alpha 1d-adrenoceptor	AAA35496.1	15	PRPSCAPIKSPACRTRSP	Homo sapiens
778	377	Alpha 1b-adrenoceptor	P35368	696	KEMNSKELTLRIHSK	Homo sapiens
779	377	Alpha 1b-adrenoceptor	P35368	697	GGSLERSQSRKDSLDDSGSC	Homo sapiens
780	377	Alpha 1b-adrenoceptor	P35368	698	APEPPGRRGRHDSGPL	Homo sapiens
781	377	Alpha 1b-adrenoceptor	P35368	699	KLLTEPESPGTDGGASNGGC	Homo sapiens
782	379	Alpha 1c-adrenoceptor	AAA93114.1	1245	GSGMASAKTTHFSVR	Homo sapiens
783	379	Alpha 1c-adrenoceptor	AAA93114.1	1246	RIPVGSRETFYRISKTDGVC	Homo sapiens
784	379	Alpha 1c-adrenoceptor	AAA93114.1	1247	SSMPRG SARITVSKDQSSC	Homo sapiens
785	379	Alpha 1c-adrenoceptor	AAA93114.1	1248	ESRGLKSGLKTDKSDS	Homo sapiens
786	387	Alpha 2a-adrenoceptor	P08913	1343	ERRPNGLGPERSAGPG	Homo sapiens
787	387	Alpha 2a-adrenoceptor	P08913	1344	PGEAPAGPRDIDALD	Homo sapiens
788	387	Alpha 2a-adrenoceptor	P08913	1345	RGPRGKGKARASQVKPGD	Homo sapiens
789	387	Alpha 2a-adrenoceptor	P08913	1346	RGPGATGIGTPAAGPGE	Homo sapiens
790	387	Alpha 2a-adrenoceptor	P08913	1347	RVGAAKASRWGRQNRE	Homo sapiens
791	388	Alpha 2b-adrenoceptor	P18089	1348	IYKGDQGPQPRGRPQC	Homo sapiens

792	388	Alpha 2b-adrenoceptor	P18089	1349	RSNRRGPRAKGGPGQGE	Homo sapiens
793	388	Alpha 2b-adrenoceptor	P18089	1350	ASAREVNGHSHKSTGEK	Homo sapiens
794	388	Alpha 2b-adrenoceptor	P18089	1351	RGVGAIGGGQWRRRAH	Homo sapiens
795	389	Alpha 2c-adrenoceptor	P18825	1352	RAPVGPDGGASPTENG	Homo sapiens
796	389	Alpha 2c-adrenoceptor	P18825	1353	RTGTARPPPTWSRTR	Homo sapiens
797	389	Alpha 2c-adrenoceptor	P18825	1354	ASRSPGPGGRLSRASS	Homo sapiens
798	389	Alpha 2c-adrenoceptor	P18825	1355	RSVEFFLSRRRRARSVC	Homo sapiens
799	599	Bradykinin B1 Receptor	P46663	798	PMASGRQRRRQARVTC	Homo sapiens
800	599	Bradykinin B1 Receptor	P46663	799	NYHILASLRTREEVSR	Homo sapiens
801	599	Bradykinin B1 Receptor	P46663	800	RVRGPKDSKTTALIT	Homo sapiens
802	599	Bradykinin B1 Receptor	P46663	801	VGRLETKVWELYKQC	Homo sapiens
803	600	Bradykinin B2 Receptor	AAB02793.1	794	FRIMKEYSDEGHNVAC	Homo sapiens
804	600	Bradykinin B2 Receptor	AAB02793.1	795	CTMQIMQVLRNNEMQKKE	Homo sapiens
805	600	Bradykinin B2 Receptor	AAB02793.1	796	CQDERIIDVTQIASFM	Homo sapiens
806	600	Bradykinin B2 Receptor	AAB02793.1	797	CRSEPIQMENSMTGLRTS	Homo sapiens
807	635	Beta-1 adrenoceptor	AAA51667.1	1357	RVFREAGQKVKKIDSC	Homo sapiens
808	635	Beta-1 adrenoceptor	AAA51667.1	1358	CERRFLGGPARPPSPS	Homo sapiens
809	635	Beta-1 adrenoceptor	AAA51667.1	1359	ANGRAGKRPSRLVALRE	Homo sapiens
810	635	Beta-1 adrenoceptor	AAA51667.1	1360	CARRAARRRHATHGDRPRAS	Homo sapiens
811	635	Beta-1 adrenoceptor	AAA51667.1	1361	CLARPGPPSPGAASD	Homo sapiens
812	635	Beta-1 adrenoceptor	AAA51667.1	1362	CNGGAAADSSSLEP	Homo sapiens
813	640	Beta-2 adrenoceptor	NP_000015.1	2654	KRQLQKIDKSEGRFHV	Homo sapiens
814	640	Beta-2 adrenoceptor	NP_000015.1	2656	GEQSGYHVEQEKENKLLC	Homo sapiens
815	640	Beta-2 adrenoceptor	NP_000015.1	2662	APNRSHAPDHDVTQQR	Homo sapiens
816	640	Beta-2 adrenoceptor	NP_000015.1	2663	VPLVMVFVYSRVFQE	Homo sapiens
817	643	Beta-3 adrenoceptor	P13945	1390	RGELGRFPPEESPAP	Homo sapiens
818	643	Beta-3 adrenoceptor	P13945	1391	SRS LAPAPVGTCAPE	Homo sapiens
819	643	Beta-3 adrenoceptor	P13945	1392	GVPACGRPARILLPRE	Homo sapiens
820	643	Beta-3 adrenoceptor	P13945	1393	PSGVPAAARSSPAQPRLC	Homo sapiens
821	688	Opsin, blue-sensitive	NP_001699.1	1753	EEEFYLFKNISSVGPWDGPQ	Homo sapiens
822	688	Opsin, blue-sensitive	NP_001699.1	1754	CGPDWYTVGTYRSESYT	Homo sapiens
823	688	Opsin, blue-sensitive	NP_001699.1	1755	NNRNHGLDLRLVTIPS	Homo sapiens
824	688	Opsin, blue-sensitive	NP_001699.1	1756	IMKMVCGKAMTDESIT	Homo sapiens
825	692	Bombesin Receptor	AAA35604.1	20	SITNDTESSSSVVSNDNTNK	Homo sapiens
		Subtype-3				
826	692	Bombesin Receptor	AAA35604.1	21	KAVVKPLERQPSNAILKTC	Homo sapiens
		Subtype-3				

827	692	Bombesin Receptor Subtype-3	AAA35604.1	22	RDPNKNIMTFESCSTSPVSKK	Homo sapiens
828	692	Bombesin Receptor Subtype-3	AAA35604.1	23	RTLYKSTLNIPTEEQSHARK	Homo sapiens
829	692	Bombesin Receptor Subtype-3	AAA35604.1	24	KSFQKHFKAKQLFCCKAERPE	Homo sapiens
830	692	Bombesin Receptor Subtype-3	NP_001718.1	2286	NKGWSGDNSPGIEALC	Homo sapiens
831	692	Bombesin Receptor Subtype-3	NP_001718.1	2287	QRQPHSPNQTLUSITNDE	Homo sapiens
832	692	Bombesin Receptor Subtype-3	NP_001718.1	2288	RPEPPVADTSLTTLAV	Homo sapiens
833	692	Bombesin Receptor Subtype-3	NP_001718.1	2289	SEISVTSFTGCSVKQAEADR	Homo sapiens
834	729	CXC Chemokine Receptor 5	P32302	1382	ELDRLDNVDNDSLVENHLC	Homo sapiens
835	729	CXC Chemokine Receptor 5	P32302	1383	SQGHNNLSLPRCTFSQE	Homo sapiens
836	729	CXC Chemokine Receptor 5	P32302	1384	CVGVVHRLRQAQRPP	Homo sapiens
837	729	CXC Chemokine Receptor 5	P32302	1385	CQLFPSWRRSSISENA	Homo sapiens
838	735	C-C Chemokine Receptor 1	P32246	305	TEDYDTTEFDYGDATPC	Homo sapiens
839	735	C-C Chemokine Receptor 1	P32246	1242	ASMPGLYFSKTQWEFTHTC	Homo sapiens
840	735	C-C Chemokine Receptor 1	P32246	1243	CSLHFPHESLREWKLFQA	Homo sapiens
841	735	C-C Chemokine Receptor 1	P32246	1244	TILSVFQDFLTHEC	Homo sapiens
842	737	C-C Chemokine Receptor 3	P51677	1386	CSALYPEDTVYSWRHF	Homo sapiens
843	737	C-C Chemokine Receptor 3	P51677	1387	PEFIFYETEELFEETLC	Homo sapiens
844	737	C-C Chemokine Receptor 3	P51677	1388	SSYQSILFGNDCERSK	Homo sapiens
845	737	C-C Chemokine Receptor 3	P51677	1389	GRYIPFLPSEKLETS	Homo sapiens
846	737	C-C Chemokine Receptor 3	P51677	1751	DDVGLLCEKADTRALMAQFV	Homo sapiens
847	738	C-C Chemokine Receptor 4	P51680	306	MNATEVIDTQDETIVNSY	Mus musculus
848	738	C-C Chemokine Receptor 4	P51679	348	DESIYSNYLYESIPKPC	Homo sapiens
849	738	C-C Chemokine Receptor 4	P51679	351	DTPSSYTQSTMDHDLHD	Homo sapiens
850	738	C-C Chemokine Receptor 4	P51679	353	LETLVEVLQDCIFE	Homo sapiens
851	738	C-C Chemokine Receptor 4	P51679	491	RNHTYCKTKYSLNSTWK	Homo sapiens
852	741	C-C Chemokine Receptor 7	P32248	748	CQDEVTDYIGDNTTVD	Homo sapiens
853	741	C-C Chemokine Receptor 7	P32248	846	PELLYSDLQRSSEQAMRC	Homo sapiens
854	741	C-C Chemokine Receptor 7	P32248	847	QLRQWSSCRHRRSSMSVE	Homo sapiens
855	741	C-C Chemokine Receptor 7	P32248	848	GVKFRNDLFLKFKDLGC	Homo sapiens
856	742	C-C Chemokine Receptor 8	P51685	359	PDIFSSPCDAELIQTNG	Homo sapiens

857	742	C-C Chemokine Receptor 8	P51685	360	KILHLKRCQNHNKTKAIR	Homo sapiens
858	742	C-C Chemokine Receptor 8	P51685	362	SQIFNYLGRQMPRESC	Homo sapiens
859	742	C-C Chemokine Receptor 8	P51685	493	FVGEKFKHLSEIFQKSC	Homo sapiens
860	752	CXC Chemokine Receptor 3	P49682	1371	ENFSSYDYGENESDSC	Homo sapiens
861	752	CXC Chemokine Receptor 3	P49682	1372	CYAHILAVLLVSRGQRLRA	Homo sapiens
862	752	CXC Chemokine Receptor 3	P49682	1373	MVLEVSDHQVLNDAEVAALL	Homo sapiens
863	752	CXC Chemokine Receptor 3	P49682	1374	CPNQRGLQRQPSSRRD	Homo sapiens
864	753	CXC Chemokine Receptor 4	P30991	1376	TEEMGSGDYDSMKEPC	Homo sapiens
865	753	CXC Chemokine Receptor 4	P30991	1377	KKLRMTDKYRLHLSVAD	Homo sapiens
866	753	CXC Chemokine Receptor 4	P30991	1380	CIISKLSHSGHQRKALK	Homo sapiens
867	753	CXC Chemokine Receptor 4	P30991	1381	KILSKGKRGGHSSVSTE	Homo sapiens
868	755	Complement Component 3a Receptor 1	AAC50657.1	25	ENRSLNIVQPPGEMNDRLD	Homo sapiens
869	755	Complement Component 3a Receptor 1	AAC50657.1	26	KIPSGFPIEDHETSPLDNSD	Homo sapiens
870	755	Complement Component 3a Receptor 1	AAC50657.1	27	RKKARQSIQIGILEAAFSEE	Homo sapiens
871	755	Complement Component 3a Receptor 1	AAC50657.1	28	PQTFQRPASDSLPRGSARLT	Homo sapiens
872	758	Complement Component 5a Receptor 1	P21730	811	DLNTPVDKTSNLTLRVPD	Homo sapiens
873	758	Complement Component 5a Receptor 1	P21730	812	CGVDYSHDKRRERAVAIVRL	Homo sapiens
874	758	Complement Component 5a Receptor 1	P21730	813	CYTHLLRTWSRRATRSRK	Homo sapiens
875	758	Complement Component 5a Receptor 1	P21730	814	QGRLRKSLPSLLRNVLTE	Homo sapiens
876	767	Calcitonin Receptor-like Receptor	Q16602	841	AEEESPEDSIQLGVTR	Homo sapiens
877	767	Calcitonin Receptor-like Receptor	Q16602	843	EFVLIPWRPEGKIAEEV	Homo sapiens
878	767	Calcitonin Receptor-like Receptor	Q16602	844	RRNWNQYKIQFGNSFSNSE	Homo sapiens
879	767	Calcitonin Receptor-like Receptor	Q16602	845	RSASYTVTSTISDGGPYSHDC	Homo sapiens
880	832	Cannabinoid Receptor 1	AAB18200.1	29	NDIQYEDIKGDMSKLG	Homo sapiens
881	832	Cannabinoid Receptor 1	AAB18200.1	30	KENEENIQCCGENFMDIE	Homo sapiens
882	832	Cannabinoid Receptor 1	AAB18200.1	31	EDGKVQVTRPDQARMDIR	Homo sapiens

883	832	Cannabinoid Receptor 1	AAB18200.1	32	CEGTAQPLDNSMGDSD	Homo sapiens
884	832	Cannabinoid Receptor 1	AAB18200.1	274	MKSILDGLADTFR	Homo sapiens
885	832	Cannabinoid Receptor 1	AAB18200.1	297	NKLSSEKENEENIQ	Homo sapiens
886	833	Cannabinoid Receptor 2	CAA52376.1	33	KDGLDSNPMKDYMILSGPQK	Homo sapiens
887	833	Cannabinoid Receptor 2	CAA52376.1	34	QDRQVPGMARMRLDVR LAKT	Homo sapiens
888	833	Cannabinoid Receptor 2	CAA52376.1	35	KEEAPRSSVTETADGK	Homo sapiens
889	833	Cannabinoid Receptor 2	CAA52376.1	36	RSGEIRSSAHCLAHWKCK	Homo sapiens
890	922	Leukocyte Antigen CD97	NP_001775.1	2644	GRDPPAKDVMGPRQELLC	Homo sapiens
891	922	Leukocyte Antigen CD97	NP_001775.1	2646	CSPGYEPVSGAKTFKN	Homo sapiens
892	922	Leukocyte Antigen CD97	NP_001775.1	2647	FSSFELITPTETC	Homo sapiens
893	922	Leukocyte Antigen CD97	NP_001775.1	2648	CRPGWKPRHGIPNNQK	Homo sapiens
894	922	Leukocyte Antigen CD97	NP_001775.1	2649	DGEAGRDPPAKDVMGPR	Homo sapiens
895	922	Leukocyte Antigen CD97	NP_001775.1	2650	ANASLNLSKQKAELE	Homo sapiens
896	922	Leukocyte Antigen CD97	NP_001775.1	2651	RLSAVNSIFLSHNNTKE	Homo sapiens
897	922	Leukocyte Antigen CD97	NP_001775.1	2652	KLTKQFSEINPDMKKL	Homo sapiens
898	922	Leukocyte Antigen CD97	NP_001775.1	2680	KLVDLMEAPGDVEAL	Homo sapiens
899	922	Leukocyte Antigen CD97	NP_001775.1	2681	RFFDKVQDLGRDSKTS	Homo sapiens
900	941	EMR1 Hormone Receptor	Q14246	1180	RAEYLDIESKVINKEC	Homo sapiens
901	941	EMR1 Hormone Receptor	Q14246	2675	CVMHSWEGHIRPTRKPNTK	Homo sapiens
902	941	EMR1 Hormone Receptor	Q14246	2677	CLLNGQVREEYKRWITGKTKP	Homo sapiens
903	941	EMR1 Hormone Receptor	Q14246	2678	CLLNGQVREEYKRWITGK	Homo sapiens
904	941	EMR1 Hormone Receptor	Q14246	2679	SGHLSQCQGLKASCE	Homo sapiens
905	965	G Protein-Coupled Receptor GPR30	CAA67133.1	1183	GTALANGTGELSEHQ	Homo sapiens
906	965	G Protein-Coupled Receptor GPR30	CAA67133.1	1184	ADSUEVFNLHERVYD	Homo sapiens
907	965	G Protein-Coupled Receptor GPR30	CAA67133.1	1185	VRAHRHRLRPRQKA	Homo sapiens
908	965	G Protein-Coupled Receptor GPR30	CAA67133.1	1186	DKLRLYEQKTNLPALNRF	Homo sapiens
909	978	Cholecystokinin A Receptor	P32238	820	AKERKPSTSSGKYEDSDGC	Homo sapiens
910	978	Cholecystokinin A Receptor	P32238	821	CYLQKTRPPRKLELRQ	Homo sapiens
911	978	Cholecystokinin A Receptor	P32238	822	SANAWRAYDTASAERR	Homo sapiens
912	978	Cholecystokinin A Receptor	P32238	823	CPNPGPPGARGEVEEEE	Homo sapiens
913	1103	Corticotropin releasing factor Receptor 2	Q13324	453	CEPILDDKQRKYDLHYRIAL	Homo sapiens
914	1103	Corticotropin releasing	Q13324	502	QLVDHEVHESNEVWC	Homo sapiens

915	factor Receptor 2	1103	Q13324	505	DPEGPVSYCNTILDQIGTCW	Homo sapiens
916	Corticotropin releasing factor Receptor 2	1103	LR43	507	ALLEQYCHTITMTLNLG	Homo sapiens
917	Corticotropin releasing factor Receptor 2	1240	CAA41734.1	41	SSHHEPRGSISKEC	Homo sapiens
918	Dopamine Receptor D1	1240	CAA41734.1	42	KAKTSPSDGNATSLAETID	Homo sapiens
919	Dopamine Receptor D1	1240	CAA41734.1	43	CSQPESFKMSFKRE	Homo sapiens
920	Dopamine Receptor D1	1240	CAA41734.1	44	EDLKKEEAAGIARPLEK	Homo sapiens
921	Dopamine Receptor D5	1241	P21918	1407	PWEEDFWEPDVNAENC	Homo sapiens
922	Dopamine Receptor D5	1241	P21918	1408	CAPDTSLRASIKKETK	Homo sapiens
923	Dopamine Receptor D5	1241	P21918	1409	PNAVTPGNREVDNDEE	Homo sapiens
924	Dopamine Receptor D5	1241	P21918	1410	QTSPDGDPAESVWELDC	Homo sapiens
925	Dopamine Receptor D2	1242	P14416	1403	KRSSRAFRALHRLAPLKGNC	Homo sapiens
926	Dopamine Receptor D2	1242	P14416	1404	CTVIMKSNNGSFPVNRVRV	Homo sapiens
927	Dopamine Receptor D2	1242	P14416	1405	KPEKNGHAKDHPKIAK	Homo sapiens
928	Dopamine Receptor D2	1242	P14416	1406	GKTRTSLKMSRRKLSQQKE	Homo sapiens
929	Dopamine Receptor D3	1243	P35462	1398	KQRRRKRLTRQNSQC	Homo sapiens
930	Dopamine Receptor D3	1243	P35462	1399	CNSVRPGFPQQTLSDPD	Homo sapiens
931	Dopamine Receptor D3	1243	P35462	1400	CQDTALGGPGFQERGGE	Homo sapiens
932	Dopamine Receptor D3	1243	P35462	1401	KREEKTRNSLPTIAP	Homo sapiens
933	Dopamine Receptor D3	1243	P35462	1402	STSLKLGPLQPRGVPLRE	Homo sapiens
934	Dopamine Receptor D4	1244	P21917	1394	VAVAVPLRYNRQGGSR	Homo sapiens
935	Dopamine Receptor D4	1244	P21917	1395	EVARRAKLHGRAPRRP	Homo sapiens
936	Dopamine Receptor D4	1244	P21917	1396	PPSPTPPAPRLPQDPC	Homo sapiens
937	Dopamine Receptor D4	1244	P21917	1397	PPQTTPPQTRRRRAKITGRE	Homo sapiens
938	Oploid Receptor, delta 1 (OPRD1)	1267	AAA18789.1	222	DAYPSAFPSAGANASGP	Homo sapiens
939	Oploid Receptor, delta 1 (OPRD1)	1267	AAA18789.1	224	LVDIDRRDPLVVAALHLC	Homo sapiens
940	Oploid Receptor, delta 1 (OPRD1)	1267	AAA18789.1	225	KRCFRQLCRKPCGRPD	Homo sapiens
941	Oploid Receptor, delta 1 (OPRD1)	1267	AAA18789.1	226	SRPREATARERVATC	Homo sapiens
942	Duffy Antigen	1424	AAC50055.1	1411	TENSSQLDFEDVWNSS	Homo sapiens
943	Duffy Antigen	1424	AAC50055.1	1412	NDSPDGDYDANLEAAAPC	Homo sapiens
944	Duffy Antigen	1424	AAC50055.1	1413	CHASLGHRLGAGQVPG	Homo sapiens



945	1424	Duffy Antigen	AAC50055.1	1415	FGAKGLKALGMGPGP	Homo sapiens
946	1451	EBV-Induced Gene 2	AAA35924.1	45	KQEAERITCMEYPNFEET	Homo sapiens
947	1451	EBV-Induced Gene 2	AAA35924.1	46	KLFRITAKQNPLTEKSGVNKK	Homo sapiens
948	1451	EBV-Induced Gene 2	AAA35924.1	47	KSAPENSREMITETQM	Homo sapiens
949	1451	EBV-Induced Gene 2	AAA35924.1	48	CKGYKRKVMRMLKRQ	Homo sapiens
950	1486	Endothelin B Receptor	BAA14398.1	54	GEERGFPDRAIPLLTAE	Homo sapiens
951	1486	Endothelin B Receptor	BAA14398.1	55	RLAPAEVPKGDRTAGSP	Homo sapiens
952	1486	Endothelin B Receptor	BAA14398.1	56	PTISPPPCQGPPIKE	Homo sapiens
953	1486	Endothelin B Receptor	BAA14398.1	57	EEKQSLEEKQSCCLKFAND	Homo sapiens
954	1488	Endothelin A Receptor	AAB25530.1	49	RYSNLSNHVDDFTFRGTE	Homo sapiens
955	1488	Endothelin A Receptor	AAB25530.1	50	NRRNGSLRIALSEHLK	Homo sapiens
956	1488	Endothelin A Receptor	AAB25530.1	51	EYRGEQHKTCMLNATSK	Homo sapiens
957	1488	Endothelin A Receptor	AAB25530.1	53	KNHDQNNHNIDRSSHKD	Homo sapiens
958	1598	Calcium-Sensing Receptor (CASR)	P41180	1425	RPQIEKFREEAEERDIC	Homo sapiens
959	1598	Calcium-Sensing Receptor (CASR)	P41180	1426	CHLQEGAKGPLVDIFLR	Homo sapiens
960	1598	Calcium-Sensing Receptor (CASR)	P41180	1427	GHEESGDRFSNSTAFRPLC	Homo sapiens
961	1598	Calcium-Sensing Receptor (CASR)	P41180	1428	KGIIEGEPTCCFECVECPDG	Homo sapiens
962	1598	Calcium-Sensing Receptor (CASR)	P41180	1429	CSTAAHAFKVAARATLRRSN	Homo sapiens
963	1598	Calcium-Sensing Receptor (CASR)	P41180	1430	PQKNAMAHNRNTHQNSLE	Homo sapiens
964	1598	Calcium-Sensing Receptor (CASR)	P41180	1431	RPEVEDPEELSPALVVSSSQ	Homo sapiens
965	1676	Formyl Peptide Receptor-Like Receptor	NP_001453.1	1878	ASWGGTPEERLKVATMLTA	Homo sapiens
966	1676	Formyl Peptide Receptor-Like Receptor	NP_001453.1	1879	SEDSAPTNDTAANSAS	Homo sapiens
967	1676	Formyl Peptide Receptor-Like Receptor	NP_001453.1	1880	SVESAGYTVLRILPLWL	Homo sapiens
968	1676	Formyl Peptide Receptor-Like Receptor	NP_001453.1	1881	PVFLFLTVTPNGD	Homo sapiens
969	1676	Formyl Peptide Receptor-Like Receptor	NP_001453.1	2612	EERLKVATMLTARGIIRFV	Homo sapiens
970	1676	Formyl Peptide Receptor-Like Receptor	NP_001453.1	2613	ERALSEDSAPTNDTAANSAS	Homo sapiens

971	1681	Like Receptor			58	QESKVTSPDLPRNAIELR	Homo sapiens
		Follicle Stimulating Hormone Receptor	AAA52477.1				
972	1681	Follicle Stimulating Hormone Receptor	AAA52477.1		59	DVLEIEADVFSNLPK	Homo sapiens
973	1681	Follicle Stimulating Hormone Receptor	AAA52477.1		60	RNGHCSSAPRVTSYSTV	Homo sapiens
974	1681	Follicle Stimulating Hormone Receptor	AAA52477.1		61	RGQRSSLAEDNESSYRGFD	Homo sapiens
975	1681	Follicle Stimulating Hormone Receptor	NP_000136.1		2231	CHHRICHCSNRVFLCQE	Homo sapiens
976	1681	Follicle Stimulating Hormone Receptor	NP_000136.1		2232	LRVIQKGAFSGFGDLEK	Homo sapiens
977	1681	Follicle Stimulating Hormone Receptor	NP_000136.1		2233	LYVMSLLVLNVLAFFVIC	Homo sapiens
978	1681	Follicle Stimulating Hormone Receptor	NP_000136.1		2234	CNKSILRQEVDMTGARGQR	Homo sapiens
979	1681	Follicle Stimulating Hormone Receptor	NP_000136.1		2236	SDNNILELPNDVFHGA	Homo sapiens
980	1681	Follicle Stimulating Hormone Receptor	NP_000136.1		2238	KLVALMEASLTYPSC	Homo sapiens
981	1681	Follicle Stimulating Hormone Receptor	NP_000136.1		2241	SFESVILWLNKNGIQEIHC	Homo sapiens
982	1681	Follicle Stimulating Hormone Receptor	NP_000136.1		2248	IHSLQKVLVDIQDNINIHT	Homo sapiens
983	1681	Follicle Stimulating Hormone Receptor	NP_000136.1		2250	KANNLLYTPEAFQNL	Homo sapiens
984	1681	Follicle Stimulating Hormone Receptor	NP_000136.1		2251	CYEMQAQIVRTETSTVH	Homo sapiens
985	1726	G Protein-Coupled Receptor RDC1	AAA62370.1		1437	TNPSSRKKMVRVRVC	Homo sapiens
986	1726	G Protein-Coupled Receptor RDC1	AAA62370.1		1439	ARASASSDQEKHSRK	Homo sapiens
987	1726	G Protein-Coupled Receptor RDC1	AAA62370.1		1440	KYSAKTGLTKLIDASRVSET	Homo sapiens
988	1726	G Protein-Coupled Receptor RDC1	AAA62370.1		1893	PDTYLVKTVTSASNNETYC	Homo sapiens
989	1762	Galatin Receptor GalR1	AAA50767.1		192	GNSLVITVLARSKPGKPR	Homo sapiens
990	1762	Galatin Receptor GalR1	AAA50767.1		193	PRASNQTCWEQWDPRHKK	Homo sapiens

991	1762	Galanin Receptor Gair1	AAA50767.1	194	KKLKNMSKSEASKKTAQ	Homo sapiens
992	1762	Galanin Receptor Gair1	AAA50767.1	195	GNSLVITVLARSKP	Homo sapiens
993	1762	Galanin Receptor Gair1	AAA50767.1	196	RKDSHLSDTKENKSRID	Homo sapiens
994	1808	Gastric Inhibitory Polypeptide Receptor	P48546	1250	QTAGELYQRWERYRREC	Homo sapiens
995	1808	Gastric Inhibitory Polypeptide Receptor	P48546	1251	CENPEKNEAFILQRLILR	Homo sapiens
996	1808	Gastric Inhibitory Polypeptide Receptor	P48546	1253	CRLRRSLGEEQRQLPERAFR	Homo sapiens
997	1808	Gastric Inhibitory Polypeptide Receptor	P48546	1276	PTSRGLSSGTLPGPGNEA	Homo sapiens
998	1813	Gastrin-Releasing Peptide Receptor	P30550	829	CNISSHSADLPVNDDWSHPG	Homo sapiens
999	1813	Gastrin-Releasing Peptide Receptor	P30550	830	SDLHPFHEESTNQTFISC	Homo sapiens
1000	1813	Gastrin-Releasing Peptide Receptor	P30550	831	YNLPVEGNIHVKKQIES	Homo sapiens
1001	1813	Gastrin-Releasing Peptide Receptor	P30550	832	CQPGLIIRSHSTGRSTT	Homo sapiens
1002	1814	Cholecystokinin B Receptor	Q16144	1281	CEPPRIRGAGTRELEAIR	Homo sapiens
1003	1814	Cholecystokinin B Receptor	Q16144	1282	RVRNQGGLPGAVHQNGRC	Homo sapiens
1004	1814	Cholecystokinin B Receptor	Q16144	1283	LRFDGSDSDSQSRVR	Homo sapiens
1005	1814	Cholecystokinin B Receptor	Q16144	1284	CRPETGAVGKDSGDCY	Homo sapiens
1006	1834	Glucagon Receptor	P47871	837	DGLLRTRYSGKIGDDL	Homo sapiens
1007	1834	Glucagon Receptor	P47871	838	CGPDGGQWVRGPRGQPWRDAS	Homo sapiens
1008	1834	Glucagon Receptor	P47871	839	CQMDGEEIEVQKEVAKMYSS	Homo sapiens
1009	1834	Glucagon Receptor	P47871	840	TSNHRASSSPGHGPPSKE	Homo sapiens
1010	1925	Gonadotropin-Releasing Hormone Receptor	AAA35917.1	206	KLQKWTQKKEGKKLSRMK	Homo sapiens
1011	1925	Gonadotropin-Releasing Hormone Receptor	AAA35917.1	207	DRSLAIRPLALKSNSKVGQ	Homo sapiens
1012	1925	Gonadotropin-Releasing Hormone Receptor	AAA35917.1	208	RMHLADSSGGTKVFSQC	Homo sapiens
1013	1925	Gonadotropin-Releasing Hormone Receptor	AAA35917.1	209	DPHELQLNQSKNIPRARLK	Homo sapiens
1014	1945	Opsin, green-sensitive	NP_000504.1	1746	QRLAGRHPQDSYEDSTQSS	Homo sapiens
1015	1945	Opsin, green-sensitive	NP_000504.1	1747	CKPFGNVRFDAKLAIVG	Homo sapiens
1016	1945	Opsin, green-sensitive	NP_000504.1	1748	KTSCGPDVFSGSSYPGVQS	Homo sapiens

1017	1945	Opsin, green-sensitive	NP_000504.1	1750	CILQLFGKKVDDGSELSS	Homo sapiens
1018	1945	Opsin, green-sensitive	NP_000504.1	1767	STRGPFEGPNYHIAPR	Homo sapiens
1019	1945	Opsin, green-sensitive	NP_000504.1	1768	TNGLVLAATMKFKLR	Homo sapiens
1020	1945	Opsin, green-sensitive	NP_000504.1	1769	ELSSASKTEVSSVSSVP	Homo sapiens
1021	1951	Growth Hormone	Q92847	581	ADLDWDASPGNDSLGD	Homo sapiens
1022	1951	Secretagogue Receptor	Q92847	582	GVEHENGTDPWDNEC	Homo sapiens
1023	1951	Secretagogue Receptor	Q92847	583	KLWRRRRGDAVV GASL	Homo sapiens
1024	1951	Secretagogue Receptor	Q92847	584	SQRKLSTLKDESSRAW	Homo sapiens
1025	1954	Secretagogue Receptor	Q02643	833	REDESACLQAAEEMPNTILG	Homo sapiens
1026	1954	Hormone Receptor	Q02643	834	CPDFFSHFSSES GAVKRD	Homo sapiens
1027	1954	Growth Hormone-Releasing	Q02643	835	VRKLEPAQGS LHTQSQ	Homo sapiens
1028	1954	Hormone Receptor	Q02643	836	RTEISRKWHGHDPELL	Homo sapiens
1029	2120	Histamine H1 Receptor	P35367	1167	GWNHFMQQTSVRREDKC	Homo sapiens
1030	2120	Histamine H1 Receptor	P35367	1168	CQHRELINRSLPSFSEIKLR	Homo sapiens
1031	2120	Histamine H1 Receptor	P35367	1169	AGGGSVLKSPSQTPKE	Homo sapiens
1032	2120	Histamine H1 Receptor	P35367	1170	KSPV/FSQEDDDREVDKLYC	Homo sapiens
1033	2120	Histamine H1 Receptor	P35367	1171	TAPGKGKLRSGSNTGLD	Homo sapiens
1034	2120	Histamine H1 Receptor	P35367	1172	KRLRSHSRQYVSGLHMNRE	Homo sapiens
1035	2121	Histamine H2 Receptor	P25021	1173	NSRNETSKGNHTSKC	Homo sapiens
1036	2121	Histamine H2 Receptor	P25021	1174	CITYYRIFKVARDQAKR	Homo sapiens
1037	2121	Histamine H2 Receptor	P25021	1175	RDQAKRINHISWKAA	Homo sapiens
1038	2121	Histamine H2 Receptor	P25021	1176	TAFVYRGLRGDDAINE	Homo sapiens
1039	2121	Histamine H2 Receptor	P25021	1177	HKTSLSRNASQLSRITQSRE	Homo sapiens
1040	2783	Oploid Receptor, kappa 1 (OPRK1)	AAA63906.1	227	DSNGSAGSEDAQLEPA	Homo sapiens
1041	2783	Oploid Receptor, kappa 1 (OPRK1)	AAA63906.1	228	KVREDVDVIECSLQFPDDD	Homo sapiens
1042	2783	Oploid Receptor, kappa 1 (OPRK1)	AAA63906.1	229	RNTVQDPAYLRDIDGMNK	Homo sapiens
1043	2783	Oploid Receptor, kappa 1 (OPRK1)	AAA63906.1	230	CFPLKMRMERQSTSRVRN	Homo sapiens

1044	2964	(OPRK1) Luteinizing Hormone/Choriogonadotro pin Receptor	Q14751	1432	CNTGIRKFPDVTKVFSSSN	Homo sapiens
1045	2964	Luteinizing Hormone/Choriogonadotro pin Receptor	Q14751	1433	KMHNGAFRGATGPKTLD	Homo sapiens
1046	2964	Luteinizing Hormone/Choriogonadotro pin Receptor	Q14751	1434	CESTVRKVSNKTLVSS	Homo sapiens
1047	2964	Luteinizing Hormone/Choriogonadotro pin Receptor	Q14751	1435	FAVRNPELMATNKDTK	Homo sapiens
1048	2964	Luteinizing Hormone/Choriogonadotro pin Receptor	Q14751	1436	CKRRAELYRRKDFSAVTSN	Homo sapiens
1049	2976	Lysophosphatidic Acid Receptor Edg2	AAC51139.1	210	ERHITVFRMQLHTRMSNRR	Homo sapiens
1050	2976	Lysophosphatidic Acid Receptor Edg2	AAC51139.1	211	RQRTMRMSRHSSGPRRNRD	Homo sapiens
1051	2976	Lysophosphatidic Acid Receptor Edg2	AAC51139.1	212	KHLATEWNTVSKLVM	Homo sapiens
1052	2976	Lysophosphatidic Acid Receptor Edg2	AAC51139.1	213	ENPTGPTESSDRSASSLN	Homo sapiens
1053	3038	G Protein-Coupled Receptor MRG	AAB21255.1	184	ESQISLSCSLCHSGDQEAQ	Homo sapiens
1054	3038	G Protein-Coupled Receptor MRG	AAB21255.1	185	QQQKATRYYAVVQISAPM	Homo sapiens
1055	3038	G Protein-Coupled Receptor MRG	AAB21255.1	186	DKPEVGRNKKAAAGIDPME	Homo sapiens
1056	3038	G Protein-Coupled Receptor MRG	AAB21255.1	187	EQPHSTQHVENILLPREHRVD	Homo sapiens
1057	3057	Melanocortin 3 Receptor (MC3R)	P41968	451	RLHVVKRIAALPPADGVAPQ	Homo sapiens
1058	3057	Melanocortin 3 Receptor (MC3R)	P41968	452	DPLIYAFRSLELRNIFRE	Homo sapiens
1059	3057	Melanocortin 3 Receptor (MC3R)	P41968	562	QAPFFSNQSSSAFCEQVFI	Homo sapiens
1060	3057	Melanocortin 3 Receptor (MC3R)	P41968	563	IVHSDYLTEDQFIQHMDNI	Homo sapiens

1061	3058	(MC3R)	Melanocortin 4 Receptor	AAB33341.1	1032	HSNASESLGKGYSDDGGC	Homo sapiens
1062	3058	(MC4R)	Melanocortin 4 Receptor	AAB33341.1	1033	KRIAVLPGTGAIRQGA	Homo sapiens
1063	3058	(MC4R)	Melanocortin 4 Receptor	AAB33341.1	1035	NSTDIDAQSFTVNIDN	Homo sapiens
1064	3058	(MC4R)	Melanocortin 4 Receptor	AAB33341.1	1469	NSTHRGMHTSLHLWNRSSYR	Homo sapiens
1065	3059	(MC4R)	Melanocortin 5 Receptor	P33032	1022	ATEGNLSGPNVKNKSSPC	Homo sapiens
1066	3059	(MC5R)	Melanocortin 5 Receptor	P33032	1024	NKHLVIADAFVRHIDN	Homo sapiens
1067	3059	(MC5R)	Melanocortin 5 Receptor	P33032	1025	MNSSFHLHFLDLNLNAT	Homo sapiens
1068	3059	(MC5R)	Melanocortin 5 Receptor	P33032	1026	RYHHIMTARRSGAIIAG	Homo sapiens
1069	3061	(MC5R)	Melanocortin 1 Receptor	AAD41352.1	1036	QGSQRRLLGSLNSTPT	Homo sapiens
1070	3061	(MC1R)	Melanocortin 1 Receptor	AAD41352.1	1038	EAGALVARAAVLQQLD	Homo sapiens
1071	3061	(MC1R)	Melanocortin 1 Receptor	AAD41352.1	1039	ALRYHSIVTLPRARQA	Homo sapiens
1072	3061	(MC1R)	Melanocortin 1 Receptor	AAD41352.1	1040	CQHAQGIARLHKRQRP	Homo sapiens
1073	3079	Melatonin Receptor type 1a	AAB17720.1	214	HSLKYDKLYSSKNSLC	Homo sapiens	
1074	3079	Melatonin Receptor type 1a	AAB17720.1	215	CTARVFFVDSSNDVADR	Homo sapiens	
1075	3079	Melatonin Receptor type 1a	AAB17720.1	216	QVRQVRVKPDRKPKLKP	Homo sapiens	
1076	3079	Melatonin Receptor type 1a	AAB17720.1	217	DSSNDVADRVKWKPSPLMTN	Homo sapiens	
1077	3080	Melatonin Receptor type 1b	P49286	930	AVRPGWSGAGSARPSR	Homo sapiens	
1078	3080	Melatonin Receptor type 1b	P49286	931	LVAIFYDGGWALGEEHC	Homo sapiens	
1079	3080	Melatonin Receptor type 1b	P49286	932	LVLGARRKAKPESRLC	Homo sapiens	
1080	3080	Melatonin Receptor type 1b	P49286	933	CIGDASKGSHAEGLQSPA	Homo sapiens	
1081	3080	Melatonin Receptor type 1b	P49286	934	QEMAPQIPEGLFVTSY	Homo sapiens	
1082	3081	Melatonin-Related Receptor	Q13585	751	LAARDPAGQNPNDNLAE	Homo sapiens	
1083	3081	Melatonin-Related Receptor	Q13585	752	ARARAHARDQAREQDRAHAC	Homo sapiens	
1084	3081	Melatonin-Related Receptor	Q13585	753	DRASGHPKPHSRSSAY	Homo sapiens	
1085	3081	Melatonin-Related Receptor	Q13585	754	HPKPAADNPELSASHC	Homo sapiens	

1086	3081	Melatonin-Related Receptor	Q13585	755	DDSDLPESASSPAAAGPT	Homo sapiens
1087	3093	Metabotropic Glutamate Receptor 1	Q13255	879	DDYKIQIMNKSGVVRVC	Homo sapiens
1088	3093	Metabotropic Glutamate Receptor 1	Q13255	880	CRSNITFLNIFRRKKAG	Homo sapiens
1089	3093	Metabotropic Glutamate Receptor 1	Q13255	881	DTSTKILYNVEEEDA	Homo sapiens
1090	3093	Metabotropic Glutamate Receptor 1	Q13255	882	ERFKLLQEVVVEHERE	Homo sapiens
1091	3094	Metabotropic Glutamate Receptor 2	Q14416	891	DFVRASLSRGADGSRHIC	Homo sapiens
1092	3094	Metabotropic Glutamate Receptor 2	Q14416	892	CVATSEKVGGRAMSRAAFEG	Homo sapiens
1093	3094	Metabotropic Glutamate Receptor 2	Q14416	893	CAAHSLRAVPFEQESK	Homo sapiens
1094	3094	Metabotropic Glutamate Receptor 2	Q14416	894	CDAMRPVNGRRLYKDF	Homo sapiens
1095	3094	Metabotropic Glutamate Receptor 2	Q14416	895	DAPFRPADTHNEVRFDR	Homo sapiens
1096	3094	Metabotropic Glutamate Receptor 2	Q14416	896	GKETAPERREVLTLC	Homo sapiens
1097	3095	Metabotropic Glutamate Receptor 3	CAA54796.1	897	GGLFPINEKGTGTEEC	Homo sapiens
1098	3095	Metabotropic Glutamate Receptor 3	CAA54796.1	898	EFVRASLTKVDEAEYMC	Homo sapiens
1099	3095	Metabotropic Glutamate Receptor 3	CAA54796.1	899	RSNIRKSYDSVIRELL	Homo sapiens
1100	3095	Metabotropic Glutamate Receptor 3	CAA54796.1	900	CDKHLAIDSSNVEQES	Homo sapiens
1101	3095	Metabotropic Glutamate Receptor 3	CAA54796.1	902	GTRRYTLAEKRETVILKC	Homo sapiens
1102	3096	Metabotropic Glutamate Receptor 4	Q14833	909	PSSLGKPKGHPHMSIRID	Homo sapiens
1103	3096	Metabotropic Glutamate Receptor 4	Q14833	910	CGSGGPIITKPERVVG	Homo sapiens
1104	3096	Metabotropic Glutamate Receptor 4	Q14833	911	CKLSRHALKKGSHVKK	Homo sapiens
1105	3096	Metabotropic Glutamate Receptor 4	Q14833	913	CPRMDPVDGTQLLKVI	Homo sapiens

1106	3096	Metabotropic Glutamate Receptor 4	Q14833	914	RIERMHWP GSGGQLPR SIC	Homo sapiens
1107	3097	Metabotropic Glutamate Receptor 5	P41594	883	KDYFDYIN VGSWDNGEL	Homo sapiens
1108	3097	Metabotropic Glutamate Receptor 5	P41594	884	KMDDDEVW SKKSNIR SVC	Homo sapiens
1109	3097	Metabotropic Glutamate Receptor 5	P41594	885	GETLRYKDRRLAQHKSEIC	Homo sapiens
1110	3097	Metabotropic Glutamate Receptor 5	P41594	886	NPNQTAVIKPFPKSTE	Homo sapiens
1111	3097	Metabotropic Glutamate Receptor 5	P41594	887	KALYDVAEAE EHFAPA	Homo sapiens
1112	3097	Metabotropic Glutamate Receptor 5	P41594	888	RSPSPISL SHRAGSAR TD	Homo sapiens
1113	3097	Metabotropic Glutamate Receptor 5	P41594	889	RESPAAGPEAAA KPD	Homo sapiens
1114	3098	Metabotropic Glutamate Receptor 6	O15303	903	QALIRGRGDG DEVGVRC	Homo sapiens
1115	3098	Metabotropic Glutamate Receptor 6	O15303	904	KLTSSTGTSQDDSTRKC	Homo sapiens
1116	3098	Metabotropic Glutamate Receptor 6	O15303	905	DVEALQWSGDPHEVPSSLC	Homo sapiens
1117	3098	Metabotropic Glutamate Receptor 6	O15303	906	RFQVDEFTCEACPGDM	Homo sapiens
1118	3098	Metabotropic Glutamate Receptor 6	O15303	907	GARPPHSVIDYEEQRT	Homo sapiens
1119	3099	Metabotropic Glutamate Receptor 7	Q14831	917	CIAGSVRIPQERKORTIDFD	Homo sapiens
1120	3099	Metabotropic Glutamate Receptor 7	Q14831	918	NDEDIKQILAAAKRAD	Homo sapiens
1121	3099	Metabotropic Glutamate Receptor 7	Q14831	921	NIEDMQWKGKGVREIPASVC	Homo sapiens
1122	3099	Metabotropic Glutamate Receptor 7	Q14831	2693	IKQLLDTPNRAVVI	Homo sapiens
1123	3099	Metabotropic Glutamate Receptor 7	Q14831	2694	DPPNIIDYDEHKTM	Homo sapiens
1124	3100	Metabotropic Glutamate Receptor 8	O00222	922	CANGDPPIFTKPKIS	Homo sapiens
1125	3100	Metabotropic Glutamate Receptor 8	O00222	923	CPRMSTIDGKELLYIRA	Homo sapiens



1126	3100	Receptor 8	000222	924	KVEDMQWAHREHHPASVC	Homo sapiens
1127	3100	Metabotropic Glutamate Receptor 8	000222	925	CESLETINISSTIKTYSYS	Homo sapiens
1128	3100	Metabotropic Glutamate Receptor 8	000222	1894	KFYWILTMIMQRTHSQEYAH	Homo sapiens
1129	3212	Opoid mu-type Receptor	AAA20580.1	231	DGNLSDPCGPNRTNLGGRDS	Homo sapiens
1130	3212	Opoid mu-type Receptor	AAA20580.1	232	DRTNHQLENLEAETAPLP	Homo sapiens
1131	3212	Opoid mu-type Receptor	AAA20580.1	233	IKALVTIPETTFQTVS	Homo sapiens
1132	3212	Opoid mu-type Receptor	AAA20580.1	234	RIRQNTRDHPSTANTVD	Homo sapiens
1133	3223	Muscarinic acetylcholine Receptor M1	AAA35686.1	1325	SERSQPGAEQSPETPPGRC	Homo sapiens
1134	3223	Muscarinic acetylcholine Receptor M1	AAA35686.1	1326	CRAPRLLQAYSWKEE	Homo sapiens
1135	3223	Muscarinic acetylcholine Receptor M1	AAA35686.1	1327	SSEGEPPGSEVWIKMP	Homo sapiens
1136	3223	Muscarinic acetylcholine Receptor M1	AAA35686.1	1328	KQPPRSSPNTV/KRPTKKGRD	Homo sapiens
1137	3223	Muscarinic acetylcholine Receptor M1	AAA35686.1	1329	CRWDKRRWRKIPKRP	Homo sapiens
1138	3224	Muscarinic acetylcholine Receptor M2	AAA51570.1	1330	EHNKIQNGKAPRDPVTENC	Homo sapiens
1139	3224	Muscarinic acetylcholine Receptor M2	AAA51570.1	1331	DTSVSAVASNMIRDDE	Homo sapiens
1140	3224	Muscarinic acetylcholine Receptor M2	AAA51570.1	1332	ENTVSTSLGHSKDENSEKQIC	Homo sapiens
1141	3224	Muscarinic acetylcholine Receptor M2	AAA51570.1	1333	DEKQNVIVARKIVKMTK	Homo sapiens
1142	3224	Muscarinic acetylcholine Receptor M2	AAA51570.1	1831	RIKKDKKEPVANQDPVSPSL	Homo sapiens
1143	3226	Muscarinic acetylcholine Receptor M4	AAA51571.1	218	SRSRVHHRPEGPKEKKA	Homo sapiens
1144	3226	Muscarinic acetylcholine Receptor M4	AAA51571.1	219	KKPRPGGRPGGLRNGKLEEA	Homo sapiens
1145	3226	Muscarinic acetylcholine Receptor M4	AAA51571.1	220	DKDTSNESSSGSATQNTKER	Homo sapiens
1146	3226	Muscarinic acetylcholine Receptor M4	AAA51571.1	221	RPAANVARKFASIARNQVRK	Homo sapiens

1147	3227	Muscarinic Acetylcholine Receptor M5	P08912	1334	KAEKRKPAHRAFRSC	Homo sapiens
1148	3227	Muscarinic Acetylcholine Receptor M5	P08912	1335	CSSYPSEDEDKPATD	Homo sapiens
1149	3227	Muscarinic Acetylcholine Receptor M5	P08912	1336	KESPGEEFSAEETETV	Homo sapiens
1150	3227	Muscarinic Acetylcholine Receptor M5	P08912	1337	KFRLVVKADGNQETNNGC	Homo sapiens
1151	3227	Muscarinic Acetylcholine Receptor M5	P08912	1338	KEPSTKGLNPNSHQM	Homo sapiens
1152	3378	Tachykinin Receptor 3	NP_001050.1	1757	PAAETWIDGGGGVGAD	Homo sapiens
1153	3378	Tachykinin Receptor 3	NP_001050.1	1759	PSQPWANLTNQFVQPSWR	Homo sapiens
1154	3378	Tachykinin Receptor 3	NP_001050.1	1760	SRKKRATPRDPSFNGC	Homo sapiens
1155	3378	Tachykinin Receptor 3	NP_001050.1	2265	ADAVNLTAALAAAGAA	Homo sapiens
1156	3378	Tachykinin Receptor 3	NP_001050.1	2290	SPSALGLPVASAPSPQ	Homo sapiens
1157	3380	Neuromedin B Receptor	P28336	824	ERDFLPASDGTTELVR	Homo sapiens
1158	3380	Neuromedin B Receptor	P28336	825	KTLIKSAHNLPGEYNE	Homo sapiens
1159	3380	Neuromedin B Receptor	P28336	826	SEVARISLDNSSFTAC	Homo sapiens
1160	3380	Neuromedin B Receptor	P28336	828	CGRKSYQERGTSYLLSSA	Homo sapiens
1161	3404	Neuropeptide Y Receptor Type 2	P49146	1057	RGELVPDPEPELIDST	Homo sapiens
1162	3404	Neuropeptide Y Receptor Type 2	P49146	1058	CIVYHLESKISKRISF	Homo sapiens
1163	3404	Neuropeptide Y Receptor Type 2	P49146	1059	REYSLIEIPDFEIVAC	Homo sapiens
1164	3404	Neuropeptide Y Receptor Type 2	P49146	1060	NDHYHQRRQKTKMLVC	Homo sapiens
1165	3404	Neuropeptide Y Receptor Type 2	P49146	1061	CEQRILDAIHSEVSVTFKAKK	Homo sapiens
1166	3404	Neuropeptide Y Receptor Type 2	P49146	2297	MGPIGAEADENQTVEMKVE	Homo sapiens
1167	3404	Neuropeptide Y Receptor Type 2	P49146	2298	SEVSVTFKAKKNLEVRKNSG	Homo sapiens
1168	3405	Neuropeptide Y Receptor Type 4	P50391	1068	CVTVRQKEKANVTNLL	Homo sapiens
1169	3405	Neuropeptide Y Receptor Type 4	P50391	1069	KNHSALEFLADKVC	Homo sapiens
1170	3405	Neuropeptide Y Receptor Type 4	P50391	1070	CYARIYRRLQRQGRVFHKG	Homo sapiens

1171	3405	Type 4 Neuropeptide Y Receptor	P50391	1071	CQQSAPLESEHLPST	Homo sapiens
1172	3405	Type 4 Neuropeptide Y Receptor	P50391	2275	SEHCQDSVDVMVFVTS	Homo sapiens
1173	3406	Type 4 Neuropeptide Y Receptor	Q15761	1072	MKRNQKTTVNFIGN	Homo sapiens
1174	3406	Type 5 Neuropeptide Y Receptor	Q15761	1073	CGLSNKENRLEENEMI	Homo sapiens
1175	3406	Type 5 Neuropeptide Y Receptor	Q15761	1074	NLTLPSPKSGPQVKL	Homo sapiens
1176	3406	Type 5 Neuropeptide Y Receptor	Q15761	1075	SFIKKHRRRYSKKTAC	Homo sapiens
1177	3406	Type 5 Neuropeptide Y Receptor	Q15761	1076	PERPSQENHSRIIPEN	Homo sapiens
1178	3406	Type 5 Neuropeptide Y Receptor	Q15761	1077	CFEIKPEENSVDVHELRV	Homo sapiens
1179	3408	Neurotensin Receptor Type 1	P30989	935	RVLAAPSSSELDVNTDIYS	Homo sapiens
1180	3408	Neurotensin Receptor Type 1	P30989	936	CHPFKAKTLMRSRTKK	Homo sapiens
1181	3408	Neurotensin Receptor Type 1	P30989	937	GEQNRSDGGQHAGGLVC	Homo sapiens
1182	3408	Neurotensin Receptor Type 1	P30989	938	RQAAEQGGQVCTVGGEHS	Homo sapiens
1183	3408	Neurotensin Receptor Type 1	P30989	939	CPVWRRRRKRPAFSRKADS	Homo sapiens
1184	3452	Oplate Receptor-Like 1 (OPRL1)	P41146	940	CHPIRALDVRTSSKAQA	Homo sapiens
1185	3452	Oplate Receptor-Like 1 (OPRL1)	P41146	941	PVAIMGSAQVEDEEIEC	Homo sapiens
1186	3452	Oplate Receptor-Like 1 (OPRL1)	P41146	942	GVQPSSETAVAILRFC	Homo sapiens
1187	3452	Oplate Receptor-Like 1 (OPRL1)	P41146	943	CASALRRDVQVSDRVRSAK	Homo sapiens
1188	3513	Ocular Albinism 1 (Nettleship-Falls) (OA1)	NP_000264.1	2123	TPEPRPTQPMASPRIGTFC	Homo sapiens
1189	3513	Ocular Albinism 1 (Nettleship-Falls) (OA1)	NP_000264.1	2124	TAVASLLKGRQGIYE	Homo sapiens

1190	3513	Ocular Albinism 1 (Nettleship-Falls) (OA1)	NP_000264.1	2125	EMQTDINGGSLKPVRTAAK	Homo sapiens
1191	3513	Ocular Albinism 1 (Nettleship-Falls) (OA1)	NP_000264.1	2126	CSLGFQSPRKEIQWES	Homo sapiens
1192	3513	Ocular Albinism 1 (Nettleship-Falls) (OA1)	NP_000264.1	2127	SEGSDASTIEHTASESC	Homo sapiens
1193	3513	Ocular Albinism 1 (Nettleship-Falls) (OA1)	NP_000264.1	2128	NPASGKVSQVGGQTSD	Homo sapiens
1194	3544	Ocular Albinism 1 (Nettleship-Falls) (OA1)	NP_055694.1	1486	CKKLHPLKAQNLDISRIK	Homo sapiens
1195	3544	UDP-glucose Receptor (KIAA0001)	NP_055694.1	1500	KIVKPLWTSFIQSVSYSKLL	Homo sapiens
1196	3544	UDP-glucose Receptor (KIAA0001)	NP_055694.1	1502	TAITKIKFSLKSSRNSTS	Homo sapiens
1197	3544	UDP-glucose Receptor (KIAA0001)	NP_055694.1	1503	VKKKSSRNIFSIVFFVC	Homo sapiens
1198	3582	Oxytocin Receptor	CAA46097.1	244	AEGNRTAGPPRRNEALARVE	Homo sapiens
1199	3582	Oxytocin Receptor	CAA46097.1	245	RLAVLATWLGCLVASAP	Homo sapiens
1200	3582	Oxytocin Receptor	CAA46097.1	246	PEGAAAGDGGRRVALAR	Homo sapiens
1201	3582	Oxytocin Receptor	CAA46097.1	247	YLGRRLGSETSASKSNSS	Homo sapiens
1202	3589	Purinergic Receptor P2Y, G- protein coupled, 2 (P2RY2)	AAC04923.1	854	MQRIGDVLGSSEDFRR	Homo sapiens
1203	3589	Purinergic Receptor P2Y, G- protein coupled, 2 (P2RY2)	AAC04923.1	855	ARGGRVTCHDTSAPEL	Homo sapiens
1204	3589	Purinergic Receptor P2Y, G- protein coupled, 2 (P2RY2)	AAC04923.1	856	KPAYGTSGGLPRAKRK	Homo sapiens
1205	3589	Purinergic Receptor P2Y, G- protein coupled, 2 (P2RY2)	AAC04923.1	857	TGPSPATPARRRLGLRRSD	Homo sapiens
1206	3595	Purinergic Receptor P2Y1	CAA07339.1	386	RYSGVVYPLKSLGRLKKKN	Homo sapiens
1207	3595	Purinergic Receptor P2Y1	CAA07339.1	387	SGTGVRKNKITCYD	Homo sapiens
1208	3595	Purinergic Receptor P2Y1	CAA07339.1	388	RALYKDLDNSPLRKS	Homo sapiens
1209	3595	Purinergic Receptor P2Y1	CAA07339.1	389	DTFRRRLSRATRKASRRSE	Homo sapiens
1210	3596	Purinergic Receptor P2Y5	P43657	850	FVQSTHSQGNNAASEAC	Homo sapiens
1211	3596	Purinergic Receptor P2Y5	P43657	851	MVLKTLTKPVTLSRSKI	Homo sapiens
1212	3596	Purinergic Receptor P2Y5	P43657	852	TIQNSIKMKNWSVRRSD	Homo sapiens
1213	3596	Purinergic Receptor P2Y5	P43657	853	SEVHGAENFIQHNLQTLK	Homo sapiens
1214	3597	Purinergic Receptor P2Y6	Q15077	874	CTSRRALTRTAVYTLN	Homo sapiens
1215	3597	Purinergic Receptor P2Y6	Q15077	875	AQERRGKAARMAVVV	Homo sapiens

1216	3597	Purineric Receptor P2Y6	Q15077	876	TKTAYLAVRSTPGVPC	Homo sapiens
1217	3597	Purineric Receptor P2Y6	Q15077	877	KKFRRPHELLQKLTAK	Homo sapiens
1218	3597	Purineric Receptor P2Y6	Q15077	2726	CHPLAPWHKRGGRRAAW	Homo sapiens
1219	3599	G Protein-Coupled Receptor 23 (GPR23)	Q99677	870	CFRMKMRSETAIFTN	Homo sapiens
1220	3599	G Protein-Coupled Receptor 23 (GPR23)	Q99677	871	RTLKRPATLSQIGTNKK	Homo sapiens
1221	3599	G Protein-Coupled Receptor 23 (GPR23)	Q99677	872	ESFQKSFYINAHIRMES	Homo sapiens
1222	3599	G Protein-Coupled Receptor 23 (GPR23)	Q99677	873	KTETPLTKPSLPAIQEE	Homo sapiens
1223	3599	G Protein-Coupled Receptor 23 (GPR23)	Q99677	1895	SSLRPRLGNATANNTCVD	Homo sapiens
1224	3638	Parathyroid Hormone Receptor 2 (PTHr2)	AAC50157.1	248	KAKVQCELNITAIQLQEGE	Homo sapiens
1225	3638	Parathyroid Hormone Receptor 2 (PTHr2)	AAC50157.1	249	ESLIMQDDDPQNSIEATSVDK	Homo sapiens
1226	3638	Parathyroid Hormone Receptor 2 (PTHr2)	AAC50157.1	250	NSEQDCLPHSFHEETKE	Homo sapiens
1227	3638	Parathyroid Hormone Receptor 2 (PTHr2)	AAC50157.1	251	EETKEDSGRQGDDILMEKPS	Homo sapiens
1228	3640	Parathyroid Hormone Receptor 1 (PTHr1)	Q03431	761	CEKRLKEVLQRPASIMESDK	Homo sapiens
1229	3640	Parathyroid Hormone Receptor 1 (PTHr1)	Q03431	762	ESEEDKEAPTGSRYRGRPC	Homo sapiens
1230	3640	Parathyroid Hormone Receptor 1 (PTHr1)	Q03431	763	LYSGATLDEAERLIEEELR	Homo sapiens
1231	3640	Parathyroid Hormone Receptor 1 (PTHr1)	Q03431	765	KDDGFLNGSCSGLDEEASG	Homo sapiens
1232	3732	PACAP Receptor Type 1	P41586	944	CLEKIQRANELMGFNDSS	Homo sapiens
1233	3732	PACAP Receptor Type 1	P41586	945	CPFLFRIFNPDQVWETET	Homo sapiens
1234	3732	PACAP Receptor Type 1	P41586	946	DSNSLDLSDMGWVSRNC	Homo sapiens
1235	3732	PACAP Receptor Type 1	P41586	948	IKRKWRSWKVNRVFAVD	Homo sapiens
1236	3732	PACAP Receptor Type 1	P41586	2292	ESDFGDSNSLDLSDMGVWSR	Homo sapiens
1237	3844	Apelin Receptor	AAA18954.1	62	RTIGDLENTTKVQC	Homo sapiens
1238	3844	Apelin Receptor	AAA18954.1	63	RSSREKRRSADIFAS	Homo sapiens
1239	3844	Apelin Receptor	AAA18954.1	64	QTIAGHFRKERIEGLRKRPR	Homo sapiens
1240	3844	Apelin Receptor	AAA18954.1	65	GPNMKGKGGEQMHEKSIPIYSQ	Homo sapiens

1241	3845	Chemokine-Like Receptor 1 (CMKLR1)	LR39	447	RMEDEDYNTSISYGDEYPD	Homo sapiens
1242	3845	Chemokine-Like Receptor 1 (CMKLR1)	Q99788	448	DSIVLEDSLPEARVTR	Homo sapiens
1243	3845	Chemokine-Like Receptor 1 (CMKLR1)	Q99788	449	LTIVCKLHRNRLAKTKPKF	Homo sapiens
1244	3845	Chemokine-Like Receptor 1 (CMKLR1)	Q99788	450	RSFTKMSSMNERTSMNERE	Homo sapiens
1245	3846	Spingolipid Receptor Edg1	AAA52336.1	1010	TRSRRLTRKNISKASRSSE	Homo sapiens
1246	3846	Spingolipid Receptor Edg1	AAA52336.1	1011	CPSGDSAGKFKRPIIAG	Homo sapiens
1247	3846	Spingolipid Receptor Edg1	AAA52336.1	1012	CPSGDSAGKFKRPIIAGME	Homo sapiens
1248	3846	Spingolipid Receptor Edg1	AAA52336.1	1013	RSKSDNSSHPQKDEGD	Homo sapiens
1249	3847	Spingolipid Receptor Edg3	Q99500	1028	ERHLTMIKMRPYDANK	Homo sapiens
1250	3847	Spingolipid Receptor Edg3	Q99500	1029	LVKSSSRKVANHNNSE	Homo sapiens
1251	3847	Spingolipid Receptor Edg3	Q99500	1030	SPKVKEDLPHTDPSSC	Homo sapiens
1252	3847	Spingolipid Receptor Edg3	Q99500	1031	CLVRGRGARASPIQPALD	Homo sapiens
1253	3847	Spingolipid Receptor Edg3	Q99500	1752	REHYQVVGKLAGRLKEASE	Homo sapiens
1254	3848	C-C Chemokine Receptor 9	P51686	958	RAHTWREKRLLYSKMVC	Homo sapiens
1255	3848	C-C Chemokine Receptor 9	P51686	959	KEESGIAICTMVVPSDEST	Homo sapiens
1256	3848	C-C Chemokine Receptor 9	P51686	960	QAKKSKHKALKVTIT	Homo sapiens
1257	3848	C-C Chemokine Receptor 9	P51686	961	GERFRDLVKTILNLGC	Homo sapiens
1258	3849	G Protein-Coupled Receptor GPR1	AAA64592.1	74	ENYSYDLDYWSLESDEEK	Homo sapiens
1259	3849	G Protein-Coupled Receptor GPR1	AAA64592.1	75	RDTVEFNHHTLCYNNFQKHD	Homo sapiens
1260	3849	G Protein-Coupled Receptor GPR1	AAA64592.1	76	SKKFAARFRSSVAEILK	Homo sapiens
1261	3849	G Protein-Coupled Receptor GPR1	AAA64592.1	77	GTVSEQLRNSETKNLC	Homo sapiens
1262	3850	G Protein-Coupled Receptor 10 (GPR10)	O75194	1087	HPLRRLRLSAYAV	Homo sapiens
1263	3850	G Protein-Coupled Receptor 10 (GPR10)	O75194	1088	CEEFWGSQERQRLYA	Homo sapiens
1264	3850	G Protein-Coupled Receptor 10 (GPR10)	O75194	1089	SVVRVSVKLRNRVWPGC	Homo sapiens
1265	3850	G Protein-Coupled Receptor 10 (GPR10)	O75194	1090	CVTQSQADWDRARRR	Homo sapiens
1266	3850	G Protein-Coupled Receptor 10 (GPR10)	O75194	1091	DSFREELRKLVAWPRKIA	Homo sapiens

1267	3851	Receptor 10 (GPR10) G Protein-Coupled Receptor GPR12	AAA91630.1	78	GCISSLAQRARSPD	Homo sapiens
1268	3851	G Protein-Coupled Receptor GPR12	AAA91630.1	79	ENISAAVSSRVPAVEPEE	Homo sapiens
1269	3851	G Protein-Coupled Receptor GPR12	AAA91630.1	307	STCSVVRPLTKNNA	Homo sapiens
1270	3851	G Protein-Coupled Receptor GPR12	AAA91630.1	308	QSEATKLVITIGLIVAS	Homo sapiens
1271	3852	CX3C Chemokine Fractalkine Receptor 1	AAA91783.1	84	KQKENECLGDYPEVLQE	Homo sapiens
1272	3852	CX3C Chemokine Fractalkine Receptor 1	AAA91783.1	85	SMNNRTVQHGVITSL	Homo sapiens
1273	3852	CX3C Chemokine Fractalkine Receptor 1	AAA91783.1	86	ETLKLYDFFPSCDMRKDLR	Homo sapiens
1274	3852	CX3C Chemokine Fractalkine Receptor 1	AAA91783.1	87	GRSVHVDFFSSSESQSRHGS	Homo sapiens
1275	3853	G Protein-Coupled Receptor GPR15	NP_005281.1	1511	CLKNYDFGSSSTETSDSHLTK	Homo sapiens
1276	3853	G Protein-Coupled Receptor GPR15	NP_005281.1	1512	KALSTFHAEDFARRRKRS	Homo sapiens
1277	3853	G Protein-Coupled Receptor GPR15	NP_005281.1	1612	ATSPNSDIRETHSHVP	Homo sapiens
1278	3853	G Protein-Coupled Receptor GPR15	NP_005281.1	1613	LMGALHFKPGSRRUD	Homo sapiens
1279	3853	G Protein-Coupled Receptor GPR15	NP_005281.1	1615	GLPTLLSRELTJDDKPYC	Homo sapiens
1280	3854	G Protein-Coupled Receptor GPR18	AAB65819.1	93	DRYMAIVQPKYAKELKNTC	Homo sapiens
1281	3854	G Protein-Coupled Receptor GPR18	AAB65819.1	94	KDPDKDSTPATCLKISD	Homo sapiens
1282	3854	G Protein-Coupled Receptor GPR18	AAB65819.1	95	GRTSKLKPKVKEKSIR	Homo sapiens
1283	3854	G Protein-Coupled Receptor GPR18	AAB65819.1	96	RNYLRLSLRRKSRFSGSLR	Homo sapiens
1284	3855	G Protein-Coupled Receptor GPR19	AAB00316.1	97	KVSREKAKKMI/AAASWIFD	Homo sapiens
1285	3855	G Protein-Coupled Receptor GPR19	AAB00316.1	98	DGRTVRRITMNIIVPRTKVK	Homo sapiens

1286	3855	G Protein-Coupled Receptor GPR19	AAB00316.1	99	RRGMKETFCMSSMKC	Homo sapiens
1287	3855	G Protein-Coupled Receptor GPR19	AAB00316.1	100	KTITKDSYDSFDREAKEKK	Homo sapiens
1288	3856	G Protein-Coupled Receptor GPR2/CCR10	P46092	1152	ALLFSQDGGQREGQRRRC	Homo sapiens
1289	3856	G Protein-Coupled Receptor GPR2/CCR10	P46092	1153	SGDEEDAYSAEPLPELC	Homo sapiens
1290	3856	G Protein-Coupled Receptor GPR2/CCR10	P46092	1154	ALLLDTADLLAARERS	Homo sapiens
1291	3856	G Protein-Coupled Receptor GPR2/CCR10	P46092	1155	RRLLRGGSSPSGPQPRRG	Homo sapiens
1292	3857	G Protein-Coupled Receptor GPR20	AAC51302.1	101	KSGSRHHLSAGPHALIQ	Homo sapiens
1293	3857	G Protein-Coupled Receptor GPR20	AAC51302.1	102	RTNASGLEVPLHLFARLDE	Homo sapiens
1294	3857	G Protein-Coupled Receptor GPR20	AAC51302.1	103	SRPGLLHQGRQRRVRAMQ	Homo sapiens
1295	3857	G Protein-Coupled Receptor GPR20	AAC51302.1	104	GQHGEREPSSGDVSMHRSS	Homo sapiens
1296	3858	G Protein-Coupled Receptor GPR21	AAC51303.1	105	SERQARFSSQSGETGEVQAC	Homo sapiens
1297	3858	G Protein-Coupled Receptor GPR21	AAC51303.1	106	DPYTVRSKGPLNGC	Homo sapiens
1298	3858	G Protein-Coupled Receptor GPR21	AAC51303.1	107	NSTLDGNQSSHPFCLL	Homo sapiens
1299	3858	G Protein-Coupled Receptor GPR21	AAC51303.1	108	CASQITANDPYTVRSK	Homo sapiens
1300	3859	G Protein-Coupled Receptor GPR22	AAC51304.1	109	EINMQSESNTV/RDDIDD	Homo sapiens
1301	3859	G Protein-Coupled Receptor GPR22	AAC51304.1	111	RRAVKRRHRRERQKRVFRM	Homo sapiens
1302	3859	G Protein-Coupled Receptor GPR22	AAC51304.1	112	TRQKFKQVLKSKMIKKR	Homo sapiens
1303	3859	G Protein-Coupled Receptor GPR22	AAC51304.1	113	DPKRNKKITFEDSEIREKR	Homo sapiens
1304	3860	G Protein-Coupled Receptor SLIC/MCH1	AAH01736.1	1532	CAPGQGGRRWRILPQPAWVEG	Homo sapiens
1305	3860	G Protein-Coupled	AAH01736.1	1533	EASLLPTGPNASNTSDGPDN	Homo sapiens



1306	3860	Receptor SLC/MCH1 G Protein-Coupled	AAH01736.1	1539	KGVGRAVGLGGSGCQATE	Homo sapiens
1307	3860	Receptor SLC/MCH1 G Protein-Coupled	AAH01736.1	1565	RMTSSVAPASQRSIRLTR	Homo sapiens
1308	3860	Receptor SLC/MCH1 G Protein-Coupled	AAH01736.1	1567	RAVSNAGTADERTESKG	Homo sapiens
1309	3861	Receptor SLC/MCH1 G Protein-Coupled	O00155	376	RGLQLPGGQDSQCGEEP	Homo sapiens
1310	3861	Receptor GPR25 G Protein-Coupled	O00155	377	CRISRRRLRPPHVGRARRNS	Homo sapiens
1311	3861	Receptor GPR25 G Protein-Coupled	O00155	378	RTGRLARRISSASSLSRDD	Homo sapiens
1312	3861	Receptor GPR25 G Protein-Coupled	O00155	483	DYSGLDGLEELELCPAGD	Homo sapiens
1313	3862	Receptor GPR25 G Protein-Coupled	AAB60402.1	118	TVYCLLGDAHSPLYT	Homo sapiens
1314	3862	Receptor GPR3 G Protein-Coupled	AAB60402.1	119	EGPTGPAAPLPSPKAWD	Homo sapiens
1315	3862	Receptor GPR3 G Protein-Coupled	AAB60402.1	120	HFAAVFCIGSAEMSL	Homo sapiens
1316	3862	Receptor GPR3 G Protein-Coupled	AAB60402.1	121	GLITCGVVYPLSKNH	Homo sapiens
1317	3863	Receptor GPR3 G Protein-Coupled	O00270	1157	REPEKQPKLQRAQALVTLV	Homo sapiens
1318	3863	Receptor GPR31 G Protein-Coupled	O00270	1158	CHSFYSRADGFSIIWQEA	Homo sapiens
1319	3863	Receptor GPR31 G Protein-Coupled	O00270	1159	QNLGSCRALCAVAHTSDVTG	Homo sapiens
1320	3863	Receptor GPR31 G Protein-Coupled	O00270	1160	SPTRSSYRRVFHTLRGKGQ	Homo sapiens
1321	3864	Receptor GPR31 G Protein-Coupled	AAA98457.1	143	DELFRDRYNHTCFEKFPMIE	Homo sapiens
1322	3864	Receptor GPR4 G Protein-Coupled	AAA98457.1	144	LRAVRGVSSTERQEKAKIKR	Homo sapiens
1323	3864	Receptor GPR4 G Protein-Coupled	AAA98457.1	145	RSDVAKALHNLLRFLASDK	Homo sapiens
1324	3864	Receptor GPR4 G Protein-Coupled	AAA98457.1	146	NASLTLEPLISKRNSTAK	Homo sapiens

1325	3866	G Protein-Coupled Receptor GPR6	AAA91631.1	166	FQYLPSETVSLTVG	Homo sapiens
1326	3866	G Protein-Coupled Receptor GPR6	AAA91631.1	167	CLAERAAACSVVRPLARSH	Homo sapiens
1327	3866	G Protein-Coupled Receptor GPR6	AAA91631.1	168	HLVVRICQVWRHAH	Homo sapiens
1328	3866	G Protein-Coupled Receptor GPR6	AAA91631.1	169	EIQRALWLLCGCFQSK	Homo sapiens
1329	3867	G Protein-Coupled Receptor GPR6	AAC50197.1	171	ATAESRRVAGRTYSAAR	Homo sapiens
1330	3867	G Protein-Coupled Receptor GPR7	AAC50197.1	172	RLDDEQRRQCVLVFPQPE	Homo sapiens
1331	3867	G Protein-Coupled Receptor GPR7	AAC50197.1	173	RLHAMRLDSHAKALERAKKR	Homo sapiens
1332	3867	G Protein-Coupled Receptor GPR7	AAC50197.1	174	DASFRRNLRLQLTC	Homo sapiens
1333	3868	G Protein-Coupled Receptor GPR7	AAC50198.1	175	NVSQDNGTGHNAITSEP	Homo sapiens
1334	3868	G Protein-Coupled Receptor GPR8	AAC50198.1	176	RSRHMPWRTYRGAKVAS	Homo sapiens
1335	3868	G Protein-Coupled Receptor GPR8	AAC50198.1	177	VRLRSGAKALGKARRK	Homo sapiens
1336	3868	G Protein-Coupled Receptor GPR8	AAC50198.1	178	LDDNFRKNFRSILRC	Homo sapiens
1337	3869	G Protein-Coupled Receptor HM74	BAA01721.1	179	QDHFLEIDKKNCVFRDD	Homo sapiens
1338	3869	G Protein-Coupled Receptor HM74	BAA01721.1	180	ARIWLSLRQRMDRHAKIKR	Homo sapiens
1339	3869	G Protein-Coupled Receptor HM74	BAA01721.1	181	CLQRKMTGEPDNNRSTSV	Homo sapiens
1340	3869	G Protein-Coupled Receptor HM74	BAA01721.1	182	DPNKTGGAPEALMANSGE	Homo sapiens
1341	3869	G Protein-Coupled Receptor HM74	BAA01721.1	183	SNHSHKKGHCHEPASLEKQ	Homo sapiens
1342	3869	G Protein-Coupled Receptor HM74	BAA01721.1	1453	RQRQMDRHAKIKRAITFIMV	Homo sapiens
1343	3869	G Protein-Coupled Receptor HM74	BAA01721.1	1454	SPSYLGPTSNHSHKKG	Homo sapiens
1344	3870	G Protein-Coupled Receptor HM74	Q15743	1192	AVRRSHGTQKSRKDQI	Homo sapiens

1345	3870	Receptor OGR1	Q15743	1193	LMHEEVIEDENQHRVC	Homo sapiens
1346	3870	G Protein-Coupled Receptor OGR1	Q15743	1194	CFVSETHRDLARLRG	Homo sapiens
1347	3870	G Protein-Coupled Receptor OGR1	Q15743	1195	CSRTGRAREAYPLGAPEASG	Homo sapiens
1348	3921	Prostaglandin Receptor	P43119	1188	CRMVQQKRHQGSLGPRPRT	Homo sapiens
1349	3921	Prostaglandin Receptor	P43119	1189	CFTQAVAPDSSEMMD	Homo sapiens
1350	3921	Prostaglandin Receptor	P43119	1190	ASGRDRPRAPSAPVGKEGSC	Homo sapiens
1351	3921	Prostaglandin Receptor	P43119	1191	SAWGEGQVEPLPTQQ	Homo sapiens
1352	3923	Prostaglandin D2 Receptor	Q13258	458	KSPFYRCQNTSVEKGN SAV	Homo sapiens
1353	3923	Prostaglandin D2 Receptor	Q13258	459	RNLYAMHRRRLQRHPRSC	Homo sapiens
1354	3923	Prostaglandin D2 Receptor	Q13258	503	CAEPRADGREASQPLEEL	Homo sapiens
1355	3923	Prostaglandin D2 Receptor	Q13258	504	KDVKEKNRTSEEAEDLRALR	Homo sapiens
1356	3924	Prostaglandin E Receptor EP1	P34995	962	AQAAAGRLRRRSATTF	Homo sapiens
1357	3924	Prostaglandin E Receptor EP1	P34995	963	CVGVTRPLLHAARVSVARAR	Homo sapiens
1358	3924	Prostaglandin E Receptor EP1	P34995	964	CNTLSGLALHRARWRR	Homo sapiens
1359	3924	Prostaglandin E Receptor EP1	P34995	965	ASGPDSSRRRWGAHGPR	Homo sapiens
1360	3924	Prostaglandin E Receptor EP1	P34995	966	SGSARRARAHDVEMVVGQ	Homo sapiens
1361	3925	Prostaglandin E Receptor EP2	AAD44177.1	967	IALALLARRWRGDVGC	Homo sapiens
1362	3925	Prostaglandin E Receptor EP2	AAD44177.1	968	CETRQWLPPGESPAISSV	Homo sapiens
1363	3925	Prostaglandin E Receptor EP2	AAD44177.1	969	GPSLGSGRGGPGARRRGE	Homo sapiens
1364	3925	Prostaglandin E Receptor EP2	AAD44177.1	971	NETSSRKEKWDLQALR	Homo sapiens
1365	3926	Prostaglandin E2 Receptor EP3	CAB52459.1	972	ERSAEARGNLTRPPGSGEDC	Homo sapiens
1366	3926	Prostaglandin E2 Receptor EP3	CAB52459.1	973	SRSYRRRESKRKKSFLLC	Homo sapiens
1367	3926	Prostaglandin E2 Receptor	CAB52459.1	974	CRAKATASQSSAQWGR	Homo sapiens

1368	3926	EP3 Prostaglandin E2 Receptor EP3	CAB52459.1	975	KFCQVANAVSSCSNDGQ	Homo sapiens
1369	3927	Prostaglandin E Receptor EP4	P35408	382	RLSDFRRRRSFRRIAGAE	Homo sapiens
1370	3927	Prostaglandin E Receptor EP4	P35408	383	EREVSKNPDLQAIRAS	Homo sapiens
1371	3927	Prostaglandin E Receptor EP4	P35408	384	DSQRTSSAMSGHSRFSIRE	Homo sapiens
1372	3927	Prostaglandin E Receptor EP4	P35408	385	RTLRISETSDSSQGQDSE	Homo sapiens
1373	3928	Prostaglandin F2-alpha Receptor	P43088	1046	ILMKAYQRFRQKSKAS	Homo sapiens
1374	3928	Prostaglandin F2-alpha Receptor	P43088	1047	ASDKEWIRFDQSNVLC	Homo sapiens
1375	3928	Prostaglandin F2-alpha Receptor	P43088	1048	TKPIFHSTKITSKHVK	Homo sapiens
1376	3928	Prostaglandin F2-alpha Receptor	P43088	1049	CFYNTEDIKDWDREFY	Homo sapiens
1377	3928	Prostaglandin F2-alpha Receptor	P43088	1050	RVKFKSQQHRQGRSHHLE	Homo sapiens
1378	4051	Proteinase-Activated Receptor 2	AAB47871.1	252	QGTNRSSKGRSLIGKVDGTS	Homo sapiens
1379	4051	Proteinase-Activated Receptor 2	AAB47871.1	253	QRYWVIVNPMIGHSRKKAN	Homo sapiens
1380	4051	Proteinase-Activated Receptor 2	AAB47871.1	255	SHDFRDHAKNALLCRSVR	Homo sapiens
1381	4051	Proteinase-Activated Receptor 2	AAB47871.1	256	VSLTSKKHSRKSSSYS	Homo sapiens
1382	4052	Proteinase-Activated Receptor 3	AAC51218.1	257	ENDTNNLAKPTLPIKTFR	Homo sapiens
1383	4052	Proteinase-Activated Receptor 3	AAC51218.1	258	CPEESASHLHVKNATMG	Homo sapiens
1384	4052	Proteinase-Activated Receptor 3	AAC51218.1	260	QPDITTCCHDVHNTCESSSP	Homo sapiens
1385	4052	Proteinase-Activated Receptor 3	AAC51218.1	261	MSKTRNHSTAYLTK	Homo sapiens
1386	4090	G Protein-Coupled Receptor GPR17	CAB08108.1	88	RDHKSGETPANVFLMH	Homo sapiens

1387	4090	G Protein-Coupled Receptor GPR17	CAB08108.1	90	RSLRQGLRVEKRLTKAVR	Homo sapiens
1388	4090	G Protein-Coupled Receptor GPR17	CAB08108.1	91	RSHGASCATQRILALNR	Homo sapiens
1389	4090	G Protein-Coupled Receptor GPR17	CAB08108.1	92	FEGKTNESSLSAKSE	Homo sapiens
1390	4254	Rhodopsin	P08100	1051	RNCMLTICCGKNPLGD	Homo sapiens
1391	4254	Rhodopsin	P08100	1052	CGIDYYTLKPEVNNEFVI	Homo sapiens
1392	4254	Rhodopsin	P08100	1053	CWVPYASVAFYIFTHQGSN	Homo sapiens
1393	4254	Rhodopsin	P08100	1055	VLGGFTSLYTSLHGY	Homo sapiens
1394	4284	Retinal G Protein-Coupled Receptor RPE	P47804	1042	ATSSLLRRWPYGSDDGC	Homo sapiens
1395	4284	Retinal G Protein-Coupled Receptor RPE	P47804	1043	CTLDYSKGDNRNFTSFL	Homo sapiens
1396	4284	Retinal G Protein-Coupled Receptor RPE	P47804	1044	MEQKLGKSGHLQVNTT	Homo sapiens
1397	4284	Retinal G Protein-Coupled Receptor RPE	P47804	1045	MVCRGIWQCLSPQKRE	Homo sapiens
1398	4321	Secretin Receptor	P47872	950	CLQELSRQGTGDLGTEQ	Homo sapiens
1399	4321	Secretin Receptor	P47872	951	CPRFLRMLTSRNGSLFRN	Homo sapiens
1400	4321	Secretin Receptor	P47872	952	CGVNVNDSSNEKRHSY	Homo sapiens
1401	4321	Secretin Receptor	P47872	954	KDAVLFSSDDVTYCDAAH	Homo sapiens
1402	4321	Secretin Receptor	P47872	956	MIRKLRTQETRGNEVSH	Homo sapiens
1403	4480	Somatostatin Receptor Type 1	P30872	994	EEPGRNASQNGTLSEG	Homo sapiens
1404	4480	Somatostatin Receptor Type 1	P30872	996	CLSWMDNAAEEPVDY	Homo sapiens
1405	4480	Somatostatin Receptor Type 1	P30872	997	EDFQPENLES GG VFRNGTC	Homo sapiens
1406	4480	Somatostatin Receptor Type 1	P30872	2616	LSVDAVNMFTSYC	Homo sapiens
1407	4480	Somatostatin Receptor Type 1	P30872	2618	RAYSVEDFQPENILES	Homo sapiens
1408	4481	Somatostatin Receptor Type 2	P30874	998	RSNQWGRSSCTINWPGE	Homo sapiens
1409	4481	Somatostatin Receptor Type 2	P30874	999	KVKSSGIRVGSSKRKKSE	Homo sapiens
1410	4481	Somatostatin Receptor Type	P30874	1000	CLVKVSGTDDGERSDS	Homo sapiens

1411	4481	2	Somatostatin Receptor Type P30874	1001	KQDKSRLNETTETQRT	Homo sapiens
1412	4481	2	Somatostatin Receptor Type P30874	2276	DMADEPLNGSHTWLSIP	Homo sapiens
1413	4482	2	Somatostatin Receptor Type P32745	1002	KVRSAGRRVWVAPSCQR	Homo sapiens
1414	4482	3	Somatostatin Receptor Type P32745	2622	REGGKGKEMNGRVSQI	Homo sapiens
1415	4482	3	Somatostatin Receptor Type P32745	2624	TTSEPENASSAWPPD	Homo sapiens
1416	4482	3	Somatostatin Receptor Type P32745	2626	QPGTSGQERPPSRVA	Homo sapiens
1417	4483	3	Somatostatin Receptor Type P31391	1007	IFADTRPARGGQAVAC	Homo sapiens
1418	4483	4	Somatostatin Receptor Type P31391	1008	CLLEGAGGAEEEPLDY	Homo sapiens
1419	4483	4	Somatostatin Receptor Type P31391	2627	KMRAVALRAGWQQRR	Homo sapiens
1420	4483	4	Somatostatin Receptor Type P31391	2631	CRAVLSVDGLNMFTSV	Homo sapiens
1421	4483	4	Somatostatin Receptor Type P31391	2633	CLVGLVGNALVIFVIL	Homo sapiens
1422	4484	4	Somatostatin Receptor Type NP_001044.1	2637	SLPLLVFADVQEGGTC	Homo sapiens
1423	4484	5	Somatostatin Receptor Type NP_001044.1	2638	CLRKGSGAKDADATEP	Homo sapiens
1424	4484	5	Somatostatin Receptor Type NP_001044.1	2639	RIRQQQEATPPAHRAAA	Homo sapiens
1425	4484	5	Somatostatin Receptor Type NP_001044.1	2643	RVAKLASAAAWVLSLC	Homo sapiens
1426	4552	5	Tachykinin Receptor 1 AAA36641.1	1339	CMIEWPEHPNKIYKV	Homo sapiens
1427	4552	5	Tachykinin Receptor 1 AAA36641.1	1340	CPFISAGDYEGLEMKSTRYL	Homo sapiens
1428	4552	5	Tachykinin Receptor 1 AAA36641.1	1341	KVSRLETTISTV/GAHEE	Homo sapiens
1429	4552	5	Tachykinin Receptor 1 AAA36641.1	1342	EPEDGPKATPSSDLTSNC	Homo sapiens
1430	4687	5	Thrombin Receptor P25116	1202	EDEEKNESGLTEYRLV	Homo sapiens
1431	4687	5	Thrombin Receptor P25116	2582	AVANRSKSKRALFLSAAVFC	Homo sapiens
1432	4687	5	Thrombin Receptor P25116	2583	SINKSSPLQKQLPAFISE	Homo sapiens

1433	4687	Thrombin Receptor	P25116	2621	DPRSFLLRNPNDKYEFW	Homo sapiens
1434	4734	Thyrotropin Releasing Hormone Receptor	P34981	1196	PSDPKENSKTWKNDS	Homo sapiens
1435	4734	Thyrotropin Releasing Hormone Receptor	P34981	1197	CFNSTVSSRKQVTKMLA	Homo sapiens
1436	4734	Thyrotropin Releasing Hormone Receptor	P34981	1198	RAAFRKLNCNCKQKPT	Homo sapiens
1437	4734	Thyrotropin Releasing Hormone Receptor	P34981	1199	KPANYSVAlNYSVIKE	Homo sapiens
1438	4734	Thyrotropin Releasing Hormone Receptor	P34981	1200	KESDHFSTELDDITVTD	Homo sapiens
1439	4944	Angiotensin II Type 1 Receptor	NP_000676.1	1771	EIQKNKPRNDDIFKII	Homo sapiens
1440	4944	Angiotensin II Type 1 Receptor	NP_000676.1	1772	SYRPSDNVSSSTKKPAPC	Homo sapiens
1441	4944	Angiotensin II Type 1 Receptor	NP_000676.1	1773	LNSSTEDGIKRIQDDC	Homo sapiens
1442	4946	Angiotensin II Type 2 Receptor	P50052	1321	CSQKPSDKHLDAlPIL	Homo sapiens
1443	4946	Angiotensin II Type 2 Receptor	P50052	1322	DRYQSVIYPFLSQRRN	Homo sapiens
1444	4946	Angiotensin II Type 2 Receptor	P50052	1323	RKHLTKTNSYGKNRITRD	Homo sapiens
1445	4946	Angiotensin II Type 2 Receptor	P50052	1324	RVPIITWLQGKRESMSC	Homo sapiens
1446	5072	Pyrimidinergic Receptor P2Y4	P51582	1142	CHDTRPEEFDHYVHFSSA	Homo sapiens
1447	5072	Pyrimidinergic Receptor P2Y4	P51582	1145	YLLIGDKYRRQLRQLC	Homo sapiens
1448	5072	Pyrimidinergic Receptor P2Y4	P51582	2696	HPLRALRWGRPRLAG	Homo sapiens
1449	5072	Pyrimidinergic Receptor P2Y4	P51582	2697	HIITRTIYVLARLLEADC	Homo sapiens
1450	5117	Vasopressin V1A Receptor	AAA62271.1	262	REAEALGEGNGPPRDVRNEE	Homo sapiens
1451	5117	Vasopressin V1A Receptor	AAA62271.1	263	NVRGKTASRQSKGAEQ	Homo sapiens
1452	5117	Vasopressin V1A Receptor	AAA62271.1	264	QNMKEKFNKEDTDSMSRRQ	Homo sapiens
1453	5117	Vasopressin V1A Receptor	AAA62271.1	265	RQIFYSNIRSPNTSTGMWKD	Homo sapiens
1454	5118	Vasopressin V1B Receptor	AAA65687.1	266	NATTPWLGRDEELAKVE	Homo sapiens
1455	5118	Vasopressin V1B Receptor	AAA65687.1	267	TRGLPSRVSSINTISRAKIR	Homo sapiens

1456	5118	Vasopressin V1B Receptor	AAA65687.1	268	QPRMRRRLSDGSLSRH	Homo sapiens
1457	5118	Vasopressin V1B Receptor	AAA65687.1	269	ESPRDLELDGEGTAET	Homo sapiens
1458	5119	Vasopressin V2 Receptor	CAA77746.1	270	SNSSQERPLDTRDPLARAE	Homo sapiens
1459	5119	Vasopressin V2 Receptor	CAA77746.1	271	RHGSGAHWNRPVLVAWAFS	Homo sapiens
1460	5119	Vasopressin V2 Receptor	CAA77746.1	272	CQVLIFREIHASLVPGPSE	Homo sapiens
1461	5119	Vasopressin V2 Receptor	CAA77746.1	273	RGRTPPSLGPQDESC	Homo sapiens
1462	5133	Peropsin	O14718	1147	KNEDGSVFSQTEHNIV	Homo sapiens
1463	5133	Peropsin	O14718	1148	IKYKELRTPTNAIIIN	Homo sapiens
1464	5133	Peropsin	O14718	1149	RKNDRSFVSYTMTVIA	Homo sapiens
1465	5133	Peropsin	O14718	1150	CTESLNIRDWSDQIDVTK	Homo sapiens
1466	5133	Peropsin	O14718	1151	VANKKFRRAMLAMFKC	Homo sapiens
1467	5519	Brain-Specific Angiogenesis Inhibitor 1	O14514	987	CGPAGRTSSRSQSLRSTDA	Homo sapiens
1468	5519	Brain-Specific Angiogenesis Inhibitor 1	O14514	988	EENRDKWEEAQLAGPN	Homo sapiens
1469	5519	Brain-Specific Angiogenesis Inhibitor 1	O14514	989	CRVVDREQEENGDSGG	Homo sapiens
1470	5519	Brain-Specific Angiogenesis Inhibitor 1	O14514	990	KRDKAPKSSFVGDGDI	Homo sapiens
1471	5519	Brain-Specific Angiogenesis Inhibitor 1	O14514	991	RKLQHAAEKDKEVLGP	Homo sapiens
1472	5520	Brain-Specific Angiogenesis Inhibitor 2	O60241	981	CLRPSPEEAVAQAESEVGR	Homo sapiens
1473	5520	Brain-Specific Angiogenesis Inhibitor 2	O60241	982	GSSNDLFTTEMYGEE	Homo sapiens
1474	5520	Brain-Specific Angiogenesis Inhibitor 2	O60241	983	MARDGISDKSKKQAGSERC	Homo sapiens
1475	5520	Brain-Specific Angiogenesis Inhibitor 2	O60241	984	EDAPRARPEGTPRRAAK	Homo sapiens
1476	5520	Brain-Specific Angiogenesis Inhibitor 2	O60241	985	RSRTMPRTVPGSTMKMGSL	Homo sapiens
1477	5520	Brain-Specific Angiogenesis Inhibitor 2	O60241	986	KREKRWSVSSGGAAERSVC	Homo sapiens
1478	5521	Brain-Specific Angiogenesis Inhibitor 3	O60242	976	RRVFPTNFPGLQKKGE	Homo sapiens
1479	5521	Brain-Specific Angiogenesis Inhibitor 3	O60242	977	CNLTREAKRPPKEEFG	Homo sapiens
1480	5521	Brain-Specific Angiogenesis Inhibitor 3	O60242	978	KLKHRAGQMSEPHSGLTKC	Homo sapiens



1481	5521	Inhibitor 3	Brain-Specific Angiogenesis Inhibitor 3	O60242	979	CTDDNLRGADMDIVHPQER	Homo sapiens
1482	5521	Brain-Specific Angiogenesis Inhibitor 3	Brain-Specific Angiogenesis Inhibitor 3	O60242	980	SRSETGSTISMSSLERR	Homo sapiens
1483	6031	SIV/HIV Receptor BONZO	SIV/HIV Receptor BONZO	O00574	1101	NDSSQEEHQDFLQFSK	Homo sapiens
1484	6031	SIV/HIV Receptor BONZO	SIV/HIV Receptor BONZO	O00574	1102	KATKAYNQQAARMTWG	Homo sapiens
1485	6031	SIV/HIV Receptor BONZO	SIV/HIV Receptor BONZO	O00574	1103	KTL LHAGGFQKHRS LK	Homo sapiens
1486	6031	SIV/HIV Receptor BONZO	SIV/HIV Receptor BONZO	O00574	1104	SLKFRKNFWKL VKDIGC	Homo sapiens
1487	6031	SIV/HIV Receptor BONZO	SIV/HIV Receptor BONZO	O00574	1105	KSSEDNSKTFASAHNV	Homo sapiens
1488	6204	Lysophosphatidic Acid Receptor Edg4	Lysophosphatidic Acid Receptor Edg4	AAC27728.1	66	ERHRVMAVQLHSRLPRGR	Homo sapiens
1489	6204	Lysophosphatidic Acid Receptor Edg4	Lysophosphatidic Acid Receptor Edg4	AAC27728.1	67	RRRVQRMAEHV SCHPRYRE	Homo sapiens
1490	6204	Lysophosphatidic Acid Receptor Edg4	Lysophosphatidic Acid Receptor Edg4	AAC27728.1	68	NAAVYSCRD AEMRRTRRR	Homo sapiens
1491	6204	Lysophosphatidic Acid Receptor Edg4	Lysophosphatidic Acid Receptor Edg4	AAC27728.1	69	RQSTRESVHYTSSAQGGAST	Homo sapiens
1492	6213	C-C Chemokine Receptor 5	C-C Chemokine Receptor 5	AAC50598.1	38	YSQYQFWKNFGTLK	Homo sapiens
1493	6213	C-C Chemokine Receptor 5	C-C Chemokine Receptor 5	AAC50598.1	39	QQEAPERASSVYTRSTGEQE	Homo sapiens
1494	6213	C-C Chemokine Receptor 5	C-C Chemokine Receptor 5	AAC50598.1	40	RSQKEGLHYTCSHFYPSQ	Homo sapiens
1495	6213	C-C Chemokine Receptor 5	C-C Chemokine Receptor 5	AAC50598.1	309	MDYQVSSPIVDINVTSEPC	Homo sapiens
1496	6363	Chemokine (C-C motif) Receptor-like 2 (CCRL2)	Chemokine (C-C motif) Receptor-like 2 (CCRL2)	O00421	1092	EDEYDVLIEGELESDEAEQC	Homo sapiens
1497	6363	Chemokine (C-C motif) Receptor-like 2 (CCRL2)	Chemokine (C-C motif) Receptor-like 2 (CCRL2)	O00421	1093	KGNFFSARRRVP CGIITSVL	Homo sapiens
1498	6363	Chemokine (C-C motif) Receptor-like 2 (CCRL2)	Chemokine (C-C motif) Receptor-like 2 (CCRL2)	O00421	1094	MRKTLRFREQRYSLFKLVFA	Homo sapiens
1499	6363	Chemokine (C-C motif) Receptor-like 2 (CCRL2)	Chemokine (C-C motif) Receptor-like 2 (CCRL2)	O00421	1096	RSNITLQPRGQSAQGSRE	Homo sapiens
1500	6446	Pael Receptor (GPR37)	Pael Receptor (GPR37)	AAC51281.1	127	GPGNSARDVLRARAPREEQG	Homo sapiens
1501	6446	Pael Receptor (GPR37)	Pael Receptor (GPR37)	AAC51281.1	129	DPGGPRRGNSINRRVRLKNP	Homo sapiens
1502	6446	Pael Receptor (GPR37)	Pael Receptor (GPR37)	AAC51281.1	130	LRQLSKEDLGFSGRAPAERC	Homo sapiens
1503	6446	Pael Receptor (GPR37)	Pael Receptor (GPR37)	AAC51281.1	131	PRGAVISGRSQEQSVKTVPG	Homo sapiens
1504	6446	Pael Receptor (GPR37)	Pael Receptor (GPR37)	AAC51281.1	1781	CIQKSSVTSDDDNDNEYTTE	Homo sapiens
1505	6446	Pael Receptor (GPR37)	Pael Receptor (GPR37)	NP_005293.1	1806	CIQKSSVTSDDDNDNEYTTE	Homo sapiens
1506	6536	Putative Neurotransmitter Receptor (PNR)	Putative Neurotransmitter Receptor (PNR)	O14804	319	TDVVETRLSQWLEEMPC	Homo sapiens

1507	6536	Putative Neurotransmitter Receptor (PNR)	O14804	320	KSLAGAAKHERKAAKT	Homo sapiens
1508	6536	Putative Neurotransmitter Receptor (PNR)	O14804	321	RKALKLTLSQKVFSPQTR	Homo sapiens
1509	6536	Putative Neurotransmitter Receptor (PNR)	O14804	485	HPAAFCYQVNGSCPR	Homo sapiens
1510	6777	G Protein-Coupled Receptor TM7SF1	O60478	788	KAKSKYSPELLKYRLP	Homo sapiens
1511	6777	G Protein-Coupled Receptor TM7SF1	O60478	790	KTGNWERKVIVSVRVA	Homo sapiens
1512	6777	G Protein-Coupled Receptor TM7SF1	O60478	791	KSVHSFDYDWNVSDQAD	Homo sapiens
1513	6777	G Protein-Coupled Receptor TM7SF1	O60478	792	RVRNPTKDLINPGMVP	Homo sapiens
1514	6777	G Protein-Coupled Receptor TM7SF1	O60478	793	RYDSDDDLAWNIA PQGLQ	Homo sapiens
1515	6853	Purinergic Receptor P2Y11	O43190	865	PTLSFHLKRPQQGAGNC	Homo sapiens
1516	6853	Purinergic Receptor P2Y11	O43190	866	GALGRAVLRSPGMTVAE	Homo sapiens
1517	6853	Purinergic Receptor P2Y11	O43190	867	MRVLNVDARRRWSTRC	Homo sapiens
1518	6853	Purinergic Receptor P2Y11	O43190	868	CPGYRDSWNPEDAKSTGQA	Homo sapiens
1519	6853	Purinergic Receptor P2Y11	O43190	2299	CPANFLAAADDKLSGFQGD	Homo sapiens
1520	6853	Purinergic Receptor P2Y11	O43190	2300	ASNGLALYRFSIRKQR	Homo sapiens
1521	6921	G Protein-Coupled Receptor GPR39	AAC26082.1	137	CNRSSTRHHEGPETSN	Homo sapiens
1522	6921	G Protein-Coupled Receptor GPR39	AAC26082.1	139	PNQIRIRIMAAAKPKHD	Homo sapiens
1523	6921	G Protein-Coupled Receptor GPR39	AAC26082.1	140	EKRLRVHAHSTDSAR	Homo sapiens
1524	6921	G Protein-Coupled Receptor GPR39	AAC26082.1	141	VQRPLLFASRRQSSARTEK	Homo sapiens
1525	6921	G Protein-Coupled Receptor GPR39	AAC26082.1	142	QSEAEPPQSKSQSLLESLEP	Homo sapiens
1526	7221	Galanin Receptor GalR2	AAC39634.1	197	NLTVCHPAWSAPRRRAMD	Homo sapiens
1527	7221	Galanin Receptor GalR2	AAC39634.1	198	RAVDPVAAAGSGARRAKRK	Homo sapiens
1528	7221	Galanin Receptor GalR2	AAC39634.1	199	GRAPGRASGRVCAARG	Homo sapiens
1529	7221	Galanin Receptor GalR2	AAC39634.1	200	ERESDLLHMSEAAAGALRPC	Homo sapiens
1530	7246	Orexin Receptor 1	AAC39601.1	235	DQLGDLEQGLSGEPQP	Homo sapiens
1531	7246	Orexin Receptor 1	AAC39601.1	236	EPSATPGAQMIGVPPGSR	Homo sapiens

1532	7246	Orexin Receptor 1	AAC39601.1	237	KRPDQLGDLQGLSGEPQ	Homo sapiens
1533	7246	Orexin Receptor 1	AAC39601.1	239	KAPSPRSSASHKSLQSRC	Homo sapiens
1534	7247	Orexin Receptor 2	AAC39602.1	240	SELNETQEPFLNPTDYDDEE	Homo sapiens
1535	7247	Orexin Receptor 2	AAC39602.1	241	KWKPLQPVSQPRGPGQ	Homo sapiens
1536	7247	Orexin Receptor 2	AAC39602.1	242	TKRMSAVAAEIKQIRA	Homo sapiens
1537	7247	Orexin Receptor 2	AAC39602.1	243	RQEDRLTRGRTSTESRKS	Homo sapiens
1538	8436	Platelet-Activating Factor Receptor	P25105	1097	AVTRPIKTAQANTRKR	Homo sapiens
1539	8436	Platelet-Activating Factor Receptor	P25105	1098	DSINTVPSAGSGNVTRC	Homo sapiens
1540	8436	Platelet-Activating Factor Receptor	P25105	1099	QQRNAEVKRRALWMVC	Homo sapiens
1541	8436	Platelet-Activating Factor Receptor	P25105	1100	KKFRKHLTEKFYSMRSRKC	Homo sapiens
1542	8509	G Protein-Coupled Receptor Ls8509	Q14439	398	DRYYSVLVPLERKISDAKSR	Homo sapiens
1543	8509	G Protein-Coupled Receptor Ls8509	Q14439	400	DEESEAKYIGSADFQAKE	Homo sapiens
1544	8509	G Protein-Coupled Receptor Ls8509	Q14439	401	ETRNSKKRLPLGNTPPEE	Homo sapiens
1545	8509	G Protein-Coupled Receptor Ls8509	Q14439	402	ELIQTQPKVGRVERKMSR	Homo sapiens
1546	8896	Neuropeptide Y Receptor Type 6 Pseudogene	Q99463	1078	KKQRKAGNFTSILIAN	Homo sapiens
1547	8896	Neuropeptide Y Receptor Type 6 Pseudogene	Q99463	1079	FRNLSLPTDLYTHQVAC	Homo sapiens
1548	8896	Neuropeptide Y Receptor Type 6 Pseudogene	Q99463	1080	CVENWPSKKDRLLFT	Homo sapiens
1549	8896	Neuropeptide Y Receptor Type 6 Pseudogene	Q99463	1081	CLRRRNKVDKKKENEGR	Homo sapiens
1550	9421	Neuropeptide Y Receptor Type 1	P25929	1064	DEPFQNVTLDAYKDKYVC	Homo sapiens
1551	9421	Neuropeptide Y Receptor Type 1	P25929	1065	CYFKIYIRLKRNNNMMDK	Homo sapiens
1552	9421	Neuropeptide Y Receptor Type 1	P25929	1066	CDFRSRDDDYETIAMS	Homo sapiens
1553	9421	Neuropeptide Y Receptor Type 1	P25929	1498	ENDDCHLPLAMIFTLALA	Homo sapiens
1554	9421	Neuropeptide Y Receptor Type 1	P25929	2291	SNFSEKNAQILLAFENDDC	Homo sapiens

1555	9834	Type 1 Corticotropin releasing factor Receptor 1	NP_004373.1	1778	CESLSLASISDNGVRE	Homo sapiens
1556	9834	Corticotropin releasing factor Receptor 1	NP_004373.1	1779	CQEILNEEKSKVHYHVA	Homo sapiens
1557	10457	Frizzled-2	NP_001457.1	1774	NHSEDGAPALLTAPP	Homo sapiens
1558	10457	Frizzled-2	NP_001457.1	1775	GGAPPRYATLEHPFHC	Homo sapiens
1559	10457	Frizzled-2	NP_001457.1	1776	CEPARPDGSMFFSQEE	Homo sapiens
1560	11968	Putative Leukocyte Platelet- Activating Factor Receptor (HUMNPILY20)	AAB97766.1	1082	AAREAGAAVRRPLGPE	Homo sapiens
1561	11968	Putative Leukocyte Platelet- Activating Factor Receptor (HUMNPILY20)	AAB97766.1	1083	LYRRPPREKIGRRRA	Homo sapiens
1562	11968	Putative Leukocyte Platelet- Activating Factor Receptor (HUMNPILY20)	AAB97766.1	1085	PRELAAGQSFHGCLYR	Homo sapiens
1563	11968	Putative Leukocyte Platelet- Activating Factor Receptor (HUMNPILY20)	AAB97766.1	1086	CKTVRLSDVRVRPVNTYAR	Homo sapiens
1564	14198	Interleukin-8 Receptor B	P25025	802	EDFWKGEDLSNYSYS	Homo sapiens
1565	14198	Interleukin-8 Receptor B	P25025	803	PPFLDDAAPCEPESLE	Homo sapiens
1566	14198	Interleukin-8 Receptor B	P25025	804	RRTVSSNVSPACYE	Homo sapiens
1567	14198	Interleukin-8 Receptor B	P25025	805	SKDSLPKDSRPSFVGS	Homo sapiens
1568	14641	Calcitonin Receptor	P30988	766	PKPFLYVVGRRKKMMDAQYKC	Homo sapiens
1569	14641	Calcitonin Receptor	P30988	769	VEVWPNGELVRRDPVSC	Homo sapiens
1570	14641	Calcitonin Receptor	P30988	771	KIQWNQWRGRRPSNRS	Homo sapiens
1571	14641	Calcitonin Receptor	P30988	772	CHQEPRNEPANNGEESAE	Homo sapiens
1572	16041	C-C Chemokine Receptor 6	P51684	355	TKSFLRSRTLPRSKIIC	Homo sapiens
1573	16041	C-C Chemokine Receptor 6	P51684	356	STVFVNQKYNTQGSVDCE	Homo sapiens
1574	16041	C-C Chemokine Receptor 6	P51684	357	TAANLKGKMNPRSCQE	Homo sapiens
1575	16041	C-C Chemokine Receptor 6	P51684	358	RYSENISRQTSSETADNDNAS	Homo sapiens
1576	16599	Smoothed	NP_005622.1	2595	CPLAPPELHPPAPAP	Homo sapiens
1577	16599	Smoothed	NP_005622.1	2666	CAVERERGWPDFLR	Homo sapiens
1578	16599	Smoothed	NP_005622.1	2667	CTNEVQNIKFNSSGQ	Homo sapiens
1579	16599	Smoothed	NP_005622.1	2668	CEVPLVRTDNPKSWYE	Homo sapiens
1580	16599	Smoothed	NP_005622.1	2669	CRADGTMRLGEPSTNE	Homo sapiens

1581	16599	Smoothed	NP_005622.1	2670	EAEISPELQKRLGRKK	Homo sapiens
1582	16599	Smoothed	NP_005622.1	2671	ANVTIGLPTKQPIPD	Homo sapiens
1583	17250	G Protein-Coupled Receptor GPR45	O43898	1227	SNASDSGSTQLPAPLR	Homo sapiens
1584	17250	G Protein-Coupled Receptor GPR45	O43898	1228	CVLGYTELPADRAYVV	Homo sapiens
1585	17250	G Protein-Coupled Receptor GPR45	O43898	1249	LNTVRKNAVRVHNGSD	Homo sapiens
1586	17250	G Protein-Coupled Receptor GPR45	O43898	1272	KVPERIRRIQIPSTVYC	Homo sapiens
1587	17250	G Protein-Coupled Receptor GPR45	O43898	1273	DSLDRQLTRAGLRRL	Homo sapiens
1588	17345	G Protein-Coupled Receptor D6	LR13	363	EDADAENSSFYVDYLDE	Homo sapiens
1589	17345	G Protein-Coupled Receptor D6	LR13	364	DKYLEIVHAQPYHRLRTR	Homo sapiens
1590	17345	G Protein-Coupled Receptor D6	LR13	365	CVLVRLRPAGQGALK	Homo sapiens
1591	17345	G Protein-Coupled Receptor D6	LR13	366	DLGERQSENYPNKEDVGNIK	Homo sapiens
1592	17535	Gaba(b) Receptor 1	O95375	188	EKLTKRLKRHPFEETGGFQEA	Homo sapiens
1593	17535	Gaba(b) Receptor 1	O95375	189	KKEKKEWRTLEPWIK	Homo sapiens
1594	17535	Gaba(b) Receptor 1	O95375	190	DPLHRTIETFAKEPKEDID	Homo sapiens
1595	17535	Gaba(b) Receptor 1	O95375	191	YEIEYVCRGEREVVGPVKRK	Homo sapiens
1596	17666	Glucagon-Like Peptide 1 Receptor	AAA17021.1	1205	SLWETVQKWREYRRQC	Homo sapiens
1597	17666	Glucagon-Like Peptide 1 Receptor	AAA17021.1	1206	LQKDNSSLPWRLDSEC	Homo sapiens
1598	17666	Glucagon-Like Peptide 1 Receptor	AAA17021.1	1208	CIVVSKLKANLMCKTD	Homo sapiens
1599	17666	Glucagon-Like Peptide 1 Receptor	AAA17021.1	1209	RWRLEHLHIQRDSSMKPLKC	Homo sapiens
1600	18471	G Protein-Coupled Receptor LOC51210	NP_057456.1	1520	CQVDETEEPDVHLPQP	Homo sapiens
1601	18471	G Protein-Coupled Receptor LOC51210	NP_057456.1	1521	REGLEAAGAGASAAASYSS	Homo sapiens
1602	18471	G Protein-Coupled Receptor LOC51210	NP_057456.1	1522	KLPSARAKIRITSSPI	Homo sapiens
1603	18471	G Protein-Coupled Receptor LOC51210	NP_057456.1	1523	ESKSSIKRVLAITTVLS	Homo sapiens

1604	18471	Receptor LOC51210 G Protein-Coupled	NP_057456.1	1524	QGTEILYPD AHLSAED	Homo sapiens
1605	18471	Receptor LOC51210 G Protein-Coupled	NP_057456.1	1525	PKTPLKERISLPSRRS	Homo sapiens
1606	19072	Receptor LOC51210 G Protein-Coupled	ENSP00000164265	2030	SVVQLRRQRPFDFEWNEGLC	Homo sapiens
1607	19072	Receptor Ls19072 G Protein-Coupled	ENSP00000164265	2032	PAVGWHDTSERFYTHGC	Homo sapiens
1608	19072	Receptor Ls19072 G Protein-Coupled	ENSP00000164265	2047	AVQVGRQADRRRAFTVPT	Homo sapiens
1609	19501	Receptor Ls19072 G Protein-Coupled	Q9UIZ3	1513	EHEPAGEEALRQKRAVATK	Homo sapiens
1610	19501	Receptor KIAA0758 G Protein-Coupled	Q9UIZ3	1514	ALRQKRAVATKSPTAE	Homo sapiens
1611	19501	Receptor KIAA0758 G Protein-Coupled	Q9UIZ3	1515	CEKEVLSSNVSWRYEEQQLE	Homo sapiens
1612	19501	Receptor KIAA0758 G Protein-Coupled	Q9UIZ3	1518	RLANNTGGWDSSGCYVEEGD	Homo sapiens
1613	19501	Receptor KIAA0758 G Protein-Coupled	Q9UIZ3	1519	CKQEKSSLFQISKSIG	Homo sapiens
1614	21632	Receptor KIAA0758 G Protein-Coupled	BAA96055.1	2164	CTAFQRREGGVPGRPGSPG	Homo sapiens
1615	21632	Receptor Ls21632 G Protein-Coupled	BAA96055.1	2166	APGTRASRRCDRAGRWE	Homo sapiens
1616	21632	Receptor Ls21632 G Protein-Coupled	BAA96055.1	2167	CPAERVANNRGDFRWPR	Homo sapiens
1617	21632	Receptor Ls21632 G Protein-Coupled	BAA96055.1	2171	QNPPEPEPPADQQLRFRC	Homo sapiens
1618	21632	Receptor Ls21632 G Protein-Coupled	BAA96055.1	2175	VPLGGGAPGTRASRRRC	Homo sapiens
1619	22315	Receptor Ls21632 G Protein-Coupled	LR29	425	PAARVHRPSCRCRYRD	Homo sapiens
1620	22315	Receptor GPR92/GPR93 G Protein-Coupled	LR29	426	TLARPDATQSGRRRKTVRL	Homo sapiens
1621	22315	Receptor GPR92/GPR93 G Protein-Coupled	LR29	427	RSKLVAASVPARDRVRG	Homo sapiens
1622	22315	Receptor GPR92/GPR93 G Protein-Coupled	LR29	428	AQSERSAVTTDATRPD	Homo sapiens

1623	22925	Latrophilin-3	O94867	1138	CSGKSTESSIGSGKTSGSR	Homo sapiens
1624	22925	Latrophilin-3	O94867	1140	ENHQPHHYTRRRIPQD	Homo sapiens
1625	22925	Latrophilin-3	O94867	1141	ESVTSTQTEPPPAKC	Homo sapiens
1626	22925	Latrophilin-3	O94867	1497	SSASLNREGLLNARD	Homo sapiens
1627	25359	G Protein-Coupled Receptor GPR34	O95853	1255	DRYIKINRSIQQRKAIT	Homo sapiens
1628	25359	G Protein-Coupled Receptor GPR34	O95853	1257	CFHYRDKHNKAGEAFN	Homo sapiens
1629	25359	G Protein-Coupled Receptor GPR34	O95853	1258	RISKRRSKFPNSGKYA	Homo sapiens
1630	25359	G Protein-Coupled Receptor GPR34	O95853	1259	CQLLFRRFQGEPSRSESTSE	Homo sapiens
1631	30698	G Protein-Coupled Receptor Ls30698	CAC27252.1	2721	RLQEIILTEKINKTR	Homo sapiens
1632	30698	G Protein-Coupled Receptor Ls30698	CAC27252.1	2722	KGKSRAAENASLGPTN	Homo sapiens
1633	30698	G Protein-Coupled Receptor Ls30698	CAC27252.1	2723	LLFGTIMDHKIRDALR	Homo sapiens
1634	30698	G Protein-Coupled Receptor Ls30698	CAC27252.1	2724	RPSIGSSKSQDVIMIRI	Homo sapiens
1635	30875	G Protein-Coupled Receptor GPR87/GPR95	NP_076404.1	1579	KLPNNELHGQESHNSGN	Homo sapiens
1636	30875	G Protein-Coupled Receptor GPR87/GPR95	NP_076404.1	1580	SGNRSDGPGKNTLHNEFD	Homo sapiens
1637	30875	G Protein-Coupled Receptor GPR87/GPR95	NP_076404.1	1581	RQFISQSSRRKRKHNSIR	Homo sapiens
1638	30875	G Protein-Coupled Receptor GPR87/GPR95	NP_076404.1	1582	SHLDRLDDESAQKILYYC	Homo sapiens
1639	30875	G Protein-Coupled Receptor GPR87/GPR95	NP_076404.1	1584	CRFSRRRLFKKSNIIRTRSE	Homo sapiens
1640	30875	G Protein-Coupled Receptor GPR87/GPR95	NP_076404.1	1585	ESIRSLQSVRRSEVRIVYD	Homo sapiens
1641	31568	G Protein-Coupled Receptor RE2	O75963	331	CRKELSNLTEEEGGEGGV	Homo sapiens
1642	31568	G Protein-Coupled Receptor RE2	O75963	332	EEDAQRTGRKNSSTSTSSS	Homo sapiens
1643	31568	G Protein-Coupled Receptor RE2	O75963	333	CFGDRYWREPFVQRQRTSR	Homo sapiens
1644	31568	G Protein-Coupled Receptor RE2	O75963	334	HSSSTGDTGFSCSQDSGNL	Homo sapiens

1645	36534	Receptor RE2	075473	1232	CQKLQKIDLRHNEYEKVD	Homo sapiens
1646	36534	G Protein-Coupled Receptor GPR49	075473	1233	NKGDNSSMDDLHKDA	Homo sapiens
1647	36534	G Protein-Coupled Receptor GPR49	075473	1234	QDERDLEDFLLDFFED	Homo sapiens
1648	36534	G Protein-Coupled Receptor GPR49	075473	1235	ERGFVSVKYSAKFETKA	Homo sapiens
1649	36534	G Protein-Coupled Receptor GPR49	075473	1236	RSKHPSLMSINSDDVEKQSC	Homo sapiens
1650	37498	Xenotropic and Polytropic Retrovirus Receptor (XPR1)	NP_004727.1	2597	DAQKESTGVTLRQRR	Homo sapiens
1651	37498	Xenotropic and Polytropic Retrovirus Receptor (XPR1)	NP_004727.1	2600	CKKINQLISETAEAVTN	Homo sapiens
1652	37498	Xenotropic and Polytropic Retrovirus Receptor (XPR1)	NP_004727.1	2610	ADDQTLLEQMMDQDDG	Homo sapiens
1653	37498	Xenotropic and Polytropic Retrovirus Receptor (XPR1)	NP_004727.1	2672	KYNQSSISLRPRRLASQ	Homo sapiens
1654	37498	Xenotropic and Polytropic Retrovirus Receptor (XPR1)	NP_004727.1	2673	KRYFAKFEKFFQTC	Homo sapiens
1655	37498	Xenotropic and Polytropic Retrovirus Receptor (XPR1)	NP_004727.1	2674	DGDRQKAMKRLRVPL	Homo sapiens
1656	40881	Lung Seven Transmembrane Receptor 2 (LUSTR2)	CAC28410.1	2103	RVRSGRVRVSSTRDFQDC	Homo sapiens
1657	40881	Lung Seven Transmembrane Receptor 2 (LUSTR2)	CAC28410.1	2105	CNNSVPGKEHPDITV/MIRE	Homo sapiens
1658	40881	Lung Seven Transmembrane Receptor 2 (LUSTR2)	CAC28410.1	2106	APSKPGLPKPQATVPRKVD	Homo sapiens
1659	40881	Lung Seven Transmembrane Receptor 2 (LUSTR2)	CAC28410.1	2135	AASKPKSTPAVIQGPGSKD	Homo sapiens
1660	42697	G Protein-Coupled Receptor GPR64	O00406	1261	KRSELNKTQLTSETYFIMC	Homo sapiens
1661	42697	G Protein-Coupled Receptor GPR64	O00406	1262	GNASTERNGVSFSVQNGDVC	Homo sapiens
1662	42697	G Protein-Coupled Receptor GPR64	O00406	1263	CRIRKKKQLGAGRKTSIQD	Homo sapiens
1663	42697	G Protein-Coupled Receptor GPR64	O00406	1264	DFTGKQHMIFNEKEDSC	Homo sapiens



1664	45937	KIAA1624 Protein	AAK57695	2072	PNVNPASAGNQTKTQD	Homo sapiens
1665	45937	KIAA1624 Protein	AAK57695	2073	RVKSPPEAGTQLPKIIFS	Homo sapiens
1666	45937	KIAA1624 Protein	AAK57695	2074	KDGYMVVNVSSLSNPEP	Homo sapiens
1667	45937	KIAA1624 Protein	AAK57695	2076	RSTVDSKAMGEKSFVHNG	Homo sapiens
1668	50847	Neurotensin Receptor type 2	O95665	1265	CQPLRARSLLTPRTR	Homo sapiens
1669	50847	Neurotensin Receptor type 2	O95665	1266	GQKHELETADGEPEASRVC	Homo sapiens
1670	50847	Neurotensin Receptor type 2	O95665	1267	KKTFIQGGQVSLVRHKD	Homo sapiens
1671	50847	Neurotensin Receptor type 2	O95665	1269	CGEHHPMKRLPPKPQSP	Homo sapiens
1672	50847	Neurotensin Receptor type 2	O95665	2294	STSTPGSSTPSRIELLSEE	Homo sapiens
1673	50847	Neurotensin Receptor type 2	O95665	2301	METSSPRPRPPSSNPG	Homo sapiens
1674	50847	Neurotensin Receptor type 2	O95665	2302	CSQVPSTSTPGSSTPSR	Homo sapiens
1675	53440	G Protein-Coupled Receptor LS53440	LR76	1850	DPNGNESSATYFILIG	Homo sapiens
1676	53440	G Protein-Coupled Receptor LS53440	LR76	1851	RHATVLTLPRTKIGV	Homo sapiens
1677	53440	G Protein-Coupled Receptor LS53440	LR76	1852	ILKTVLGLTREAAQAKA	Homo sapiens
1678	53440	G Protein-Coupled Receptor LS53440	LR76	1853	HRFSKRSDSPLPVILAN	Homo sapiens
1679	53440	G Protein-Coupled Receptor LS53440	LR76	1854	KEIRQRILRLFHVATHASE	Homo sapiens
1680	54053	Gaba(b) Receptor 2	O75899	1416	GEDIEISDTESFSNDPC	Homo sapiens
1681	54053	Gaba(b) Receptor 2	O75899	1417	SSKQIKTISGKTPQQYE	Homo sapiens
1682	54053	Gaba(b) Receptor 2	O75899	1419	AATQNRFRQFTQNGKKE	Homo sapiens
1683	54053	Gaba(b) Receptor 2	O75899	1420	CKDPIEDINSPEHIQRR	Homo sapiens
1684	55728	ETL protein	NP_071442.1	2113	CVLSRKIQEEYYRLFKNVP	Homo sapiens
1685	55728	ETL protein	NP_071442.1	2114	CIAANINKTLTKIRSIKEP	Homo sapiens
1686	55728	ETL protein	NP_071442.1	2115	KLNVNHRRTHTKLMHTVE	Homo sapiens
1687	55728	ETL protein	NP_071442.1	2116	EKITFTLSHRKVTDYRSLC	Homo sapiens
1688	55728	ETL protein	NP_071442.1	2117	SSSLGYNNTISAKD	Homo sapiens
1689	56923	Muscarinic acetylcholine	P20309	1421	CSSYELQQQSMKRSNRK	Homo sapiens

1690	56923	Receptor M3	P20309	1422	KPSEQMDQDHSSSDSWNNN	Homo sapiens
1691	56923	Muscarinic acetylcholine Receptor M3	P20309	1423	DLERKADKLQAQKSVD	Homo sapiens
1692	56923	Muscarinic acetylcholine Receptor M3	P20309	1424	KEATLAKRFALKTRSQ	Homo sapiens
1693	57180	Muscarinic acetylcholine Receptor M3	NP_062813.1	2097	PPTCRPRRMVSVYRPPGNE	Homo sapiens
1694	57180	Leukotriene B4 Receptor BLTR2	NP_062813.1	2098	CLAVTRPFLAPRLRSPALAR	Homo sapiens
1695	57180	Leukotriene B4 Receptor BLTR2	NP_062813.1	2099	RGARWGSGRHGARGVR	Homo sapiens
1696	57180	Leukotriene B4 Receptor BLTR2	NP_062813.1	2100	TAGDLLPRAGPRLTR	Homo sapiens
1697	57180	Leukotriene B4 Receptor BLTR2	NP_062813.1	2101	EGSGEARGGGRSREGTME	Homo sapiens
1698	57180	Leukotriene B4 Receptor BLTR2	NP_062813.1	2102	RTTPQLKVVGQGRNGD	Homo sapiens
1699	73584	Cadherin EGF LAG Seven-Pass G-Type Receptor 1 (CELSR1/Flamingo)	NP_055061.1	1909	RSAPTALSRRLRARTHLPGC	Homo sapiens
1700	73584	Cadherin EGF LAG Seven-Pass G-Type Receptor 1 (CELSR1/Flamingo)	NP_055061.1	1910	VRGSHGEPDASLMPRSC	Homo sapiens
1701	73584	Cadherin EGF LAG Seven-Pass G-Type Receptor 1 (CELSR1/Flamingo)	NP_055061.1	1911	RKEDSVLMEATSGGPTSFR	Homo sapiens
1702	73584	Cadherin EGF LAG Seven-Pass G-Type Receptor 1 (CELSR1/Flamingo)	NP_055061.1	1912	DQNKADIGGMLPGLTVRSV	Homo sapiens
1703	73584	Cadherin EGF LAG Seven-Pass G-Type Receptor 1 (CELSR1/Flamingo)	NP_055061.1	1913	PAGWPDQSLAESDSEDPSG	Homo sapiens
1704	74514	5-HT5A Receptor	NP_076917.1	2118	ETNHSGLGKDDLRPSP	Homo sapiens
1705	74514	5-HT5A Receptor	NP_076917.1	2119	SLVHELSGRRWQLGRRLC	Homo sapiens
1706	74514	5-HT5A Receptor	NP_076917.1	2120	LLFGWGETYSEGSEC	Homo sapiens
1707	74514	5-HT5A Receptor	NP_076917.1	2121	FRVGSRTKNSVSPISE	Homo sapiens
1708	74514	5-HT5A Receptor	NP_076917.1	2122	RHATVTFQPEGDTWREQK	Homo sapiens

1709	81765	Thromboxane A2 Receptor	P21731	1277	GITRFSRPAVASQRR	Homo sapiens
1710	81765	Thromboxane A2 Receptor	P21731	1278	CHVYHGQEAQQRPDSEVE	Homo sapiens
1711	81765	Thromboxane A2 Receptor	P21731	1279	RNPPAMSPAGQLSRTE	Homo sapiens
1712	81765	Thromboxane A2 Receptor	P21731	1280	RRLQPRLSRPRRVSLC	Homo sapiens
1713	98519	Chemokine (C motif) XC Receptor 1 (CCXCR1)	AAA62837.1	155	RYLSVVSPLSLRVPTLRC	Homo sapiens
1714	98519	Chemokine (C motif) XC Receptor 1 (CCXCR1)	AAA62837.1	156	SSILDITIFHKVLSGGCDYSE	Homo sapiens
1715	98519	Chemokine (C motif) XC Receptor 1 (CCXCR1)	AAA62837.1	157	VEILRTLFRSRKRRHRTVK	Homo sapiens
1716	98519	Chemokine (C motif) XC Receptor 1 (CCXCR1)	AAA62837.1	158	QTLFRTQIIRSCEAKQGLE	Homo sapiens
1717	98519	Chemokine (C motif) XC Receptor 1 (CCXCR1)	AAA62837.1	159	RLQAPSPASIPHSPGAFAYE	Homo sapiens
1718	130108	G Protein-Coupled Receptor GPR75	NP_006785.1	1589	RIEYYYSINSSPSQEE	Homo sapiens
1719	130108	G Protein-Coupled Receptor GPR75	NP_006785.1	1590	IMIAQTLRKNAQVRKC	Homo sapiens
1720	130108	G Protein-Coupled Receptor GPR75	NP_006785.1	1591	RNQNYNKLQHVQTRGYTKS	Homo sapiens
1721	130108	G Protein-Coupled Receptor GPR75	NP_006785.1	1592	SRLQLVSAINLSTAKD	Homo sapiens
1722	130108	G Protein-Coupled Receptor GPR75	NP_006785.1	1593	CKQKTRLRAMGKGNLEVR	Homo sapiens
1723	130108	G Protein-Coupled Receptor GPR75	NP_006785.1	1594	NSAYMLSPKPKQKFVDQAC	Homo sapiens
1724	133117	G Protein-Coupled Receptor RAIG1	AAC98506.1	1218	CKVQDSNRKMLPTQF	Homo sapiens
1725	133117	G Protein-Coupled Receptor RAIG1	AAC98506.1	1219	HAVSLTKLVGRKPLS	Homo sapiens
1726	133117	G Protein-Coupled Receptor RAIG1	AAC98506.1	1220	NVNVFSELSAPRRNED	Homo sapiens
1727	133117	G Protein-Coupled Receptor RAIG1	AAC98506.1	1221	TKQRNPMIDYPVEDAFC	Homo sapiens
1728	133117	G Protein-Coupled Receptor RAIG1	AAC98506.1	1222	CKPQLVKKSYGVENRA	Homo sapiens
1729	152198	Tachykinin Receptor 2	AAB05897.1	1286	RRAVPGHQAHGANLRH	Homo sapiens
1730	152198	Tachykinin Receptor 2	AAB05897.1	1287	KEDKLELPTISLSTRVNR	Homo sapiens
1731	152198	Tachykinin Receptor 2	AAB05897.1	1288	KETLFMAGDTAPSEATSGEA	Homo sapiens

1732	152198	Tachykinin Receptor 2	AAB05897.1	1290	CVAWPEDSGGKTL	Homo sapiens
1733	152201	Thyrotropin Receptor	P16473	1445	RQRKSVNALNSPLHQE	Homo sapiens
1734	152201	Thyrotropin Receptor	P16473	1446	KFQDTHNNAHVYVFFEEQED	Homo sapiens
1735	152201	Thyrotropin Receptor	P16473	1449	CHVKYIVTRNPQYNPGDK	Homo sapiens
1736	152201	Thyrotropin Receptor	P16473	1450	CKRGAQAYRGQRVPPKNSD	Homo sapiens
1737	152245	C-C Chemokine Receptor 2	NP_000639.1	1896	SRSRFRNTNESGEEVT	Homo sapiens
1738	152245	C-C Chemokine Receptor 2	NP_000639.1	1898	CGKEDSVVCGPYFPRGWNIN	Homo sapiens
1739	152245	C-C Chemokine Receptor 2	NP_000639.1	1899	SGEEVITFFDYDYGAPCHKF	Homo sapiens
1740	152299	Interleukin-8 Receptor A	P25024	806	DFDDLNTGMPPADEDSPC	Homo sapiens
1741	152299	Interleukin-8 Receptor A	P25024	807	CWGLSMNLSLPFFLFRQAYH	Homo sapiens
1742	152299	Interleukin-8 Receptor A	P25024	808	RHRVTSYTSSSVNVSSN	Homo sapiens
1743	152299	Interleukin-8 Receptor A	P25024	1490	CMLETETLNKVVVIAVALV	Homo sapiens
1744	158822	Mas Proto-Oncogene	NP_002368.1	1527	EEPTNISTGRNASVGNHRQ	Homo sapiens
1745	158822	Mas Proto-Oncogene	NP_002368.1	1528	RRNPFTVYTHLSIAD	Homo sapiens
1746	158822	Mas Proto-Oncogene	NP_002368.1	1529	YVMCIDREEESHNRDCRAV	Homo sapiens
1747	158822	Mas Proto-Oncogene	NP_002368.1	1530	SSTILVVKIRKNTWASHSSK	Homo sapiens
1748	158822	Mas Proto-Oncogene	NP_002368.1	1531	TRAFKDEMQRPRQKDN	Homo sapiens
1749	159152	G Protein-Coupled Receptor GPR43	NP_005297.1	1578	ERYLGVAFPVQYKLSRRPL	Homo sapiens
1750	159152	G Protein-Coupled Receptor GPR43	NP_005297.1	1586	QYLNITEQVRSGNEITC	Homo sapiens
1751	159152	G Protein-Coupled Receptor GPR43	NP_005297.1	1588	EGTNEDRGVGGGEGMPSSD	Homo sapiens
1752	159152	G Protein-Coupled Receptor GPR43	NP_005297.1	1616	RGLQVLRNQGSLLGRRGKD	Homo sapiens
1753	159973	Vasoactive Intestinal Polypeptide Receptor 1	P32241	1292	KQCLEEAQLENETIGCS	Homo sapiens
1754	159973	Vasoactive Intestinal Polypeptide Receptor 1	P32241	1296	KDLALFDSGESDQCSE	Homo sapiens
1755	159973	Vasoactive Intestinal Polypeptide Receptor 1	P32241	1297	LQKLPPDIRKSDSSP	Homo sapiens
1756	159973	Vasoactive Intestinal Polypeptide Receptor 1	P32241	1298	NPKYRHPGSGGNGATC	Homo sapiens
1757	160040	Vasoactive Intestinal Polypeptide Receptor 1	P41587	1299	KVFSNFYSKAGNISKNC	Homo sapiens
1758	160040	Vasoactive Intestinal Polypeptide Receptor 2	P41587	1301	CGYSDPEDESKITFYI	Homo sapiens
1759	160040	Vasoactive Intestinal Polypeptide Receptor 2	P41587	1305	KRKWRSRCPTPSASRD	Homo sapiens

1760	160040	Polypeptide Receptor 2	P41587	1306	CGSFSRNGSEGALQFHR	Homo sapiens
1761	160055	Vasoactive Intestinal Polypeptide Receptor 2	AAC26081.1	132	REPPWPALPPCDERRCS	Homo sapiens
1762	160055	Motilin Receptor (GPR38)	AAC26081.1	134	SPSPGPETAEEAAALFSREC	Homo sapiens
1763	160055	Motilin Receptor (GPR38)	AAC26081.1	135	SSRRPLRGPAASGRGRHRQ	Homo sapiens
1764	160055	Motilin Receptor (GPR38)	AAC26081.1	136	RKSRPRGFHRSRDITAG	Homo sapiens
1765	160059	G Protein-coupled Receptor GPR40	NP_005294.1	1595	NPLVTGYLGRGPGKLTVC	Homo sapiens
1766	160059	G Protein-coupled Receptor GPR40	NP_005294.1	1596	GRYLGAAPFLGYQAFRRPC	Homo sapiens
1767	160059	G Protein-coupled Receptor GPR40	NP_005294.1	1597	CLEAWDPASAGPARFS	Homo sapiens
1768	160059	G Protein-coupled Receptor GPR40	NP_005294.1	1598	CLRALARSGLTHRRKLR	Homo sapiens
1769	160059	G Protein-coupled Receptor GPR40	NP_005294.1	1599	NASNVASFLYPNLGGSWRK	Homo sapiens
1770	160059	G Protein-coupled Receptor GPR40	NP_005294.1	1617	TVSLPLKAVEALASGA	Homo sapiens
1771	160059	G Protein-coupled Receptor GPR40	NP_005294.1	1618	DHSNTSLGINTPVNGSPVC	Homo sapiens
1772	160189	G Protein-Coupled Receptor GPR54	BAB55446	1926	CSEAFPSRALERAFALY	Homo sapiens
1773	160189	G Protein-Coupled Receptor GPR54	BAB55446	1927	ERAGAVRAKVSRLVAADV	Homo sapiens
1774	160189	G Protein-Coupled Receptor GPR54	BAB55446	1928	RRPGPSDPAAPHAELHRLGS	Homo sapiens
1775	160189	G Protein-Coupled Receptor GPR54	BAB55446	1929	GAPANASGCPGCGANASD	Homo sapiens
1776	160202	Adrenomedullin Receptor (ADMR)	O15218	390	DLFNHTLSECHVELSQST	Homo sapiens
1777	160202	Adrenomedullin Receptor (ADMR)	O15218	391	NVLTACRLRQPGQPKSRRHC	Homo sapiens
1778	160202	Adrenomedullin Receptor (ADMR)	O15218	392	KDQTKAGTCASSSSCSTQ	Homo sapiens
1779	160202	Adrenomedullin Receptor (ADMR)	O15218	484	KGDSQPAAAAAPHPEPSLS	Homo sapiens
1780	160204	G Protein-Coupled Receptor RTA	LR85	1977	CRARRRQRSTKLNHVILA	Homo sapiens

1781	160204	G Protein-Coupled Receptor RTA	LR85	1983	CPGLSEAPELYRRGFLTIEQ	Homo sapiens
1782	160204	G Protein-Coupled Receptor RTA	LR85	1985	RDGAELGEAGGSTPNTVT	Homo sapiens
1783	160204	G Protein-Coupled Receptor RTA	LR85	2173	LAGRDKSQRLWEPLRV	Homo sapiens
1784	160206	G Protein-Coupled Receptor GPR32	NP_001497.1	1678	RTRKWNCGTHCYLAFNSD	Homo sapiens
1785	160206	G Protein-Coupled Receptor GPR32	NP_001497.1	1679	RAKLLREGWVHANRPKR	Homo sapiens
1786	160206	G Protein-Coupled Receptor GPR32	NP_001497.1	1680	RRVMILKEIYHPRMILLI	Homo sapiens
1787	160206	G Protein-Coupled Receptor GPR32	NP_001497.1	1682	SALARAFGEEFFLSSC	Homo sapiens
1788	160206	G Protein-Coupled Receptor GPR32	NP_001497.1	1683	RSCSRKMINSSGCLSEE	Homo sapiens
1789	160210	G Protein-Coupled Receptor GPR44 (CRTH2)	AAD21055.1	151	PGPDRDATCNSRQAALAVSK	Homo sapiens
1790	160210	G Protein-Coupled Receptor GPR44 (CRTH2)	AAD21055.1	152	SSHAAVSLRLQHRGRRRPGR	Homo sapiens
1791	160210	G Protein-Coupled Receptor GPR44 (CRTH2)	AAD21055.1	153	DDSELGGAGSSRRRRTSSTA	Homo sapiens
1792	160210	G Protein-Coupled Receptor GPR44 (CRTH2)	AAD21055.1	154	DGPPEPGAEGHLELEPGPRR	Homo sapiens
1793	160210	G Protein-Coupled Receptor GPR44 (CRTH2)	NP_004769.1	2220	CPILEQMSRLQSHSNTSIRY	Homo sapiens
1794	160210	G Protein-Coupled Receptor GPR44 (CRTH2)	NP_004769.1	2221	RYIDHAAVLLHGLASLLGLV	Homo sapiens
1795	160210	G Protein-Coupled Receptor GPR44 (CRTH2)	NP_004769.1	2222	CRMRRQTVVTTWVHLALSDDL	Homo sapiens
1796	160210	G Protein-Coupled Receptor GPR44 (CRTH2)	NP_004769.1	2223	SASLPFFTYFLAVGHSWE	Homo sapiens
1797	160210	G Protein-Coupled Receptor GPR44 (CRTH2)	NP_004769.1	2224	CLVLWALAVLNTVPYFVFRD	Homo sapiens
1798	160210	G Protein-Coupled Receptor GPR44 (CRTH2)	NP_004769.1	2225	CYVNVLLNPGPDRDAT	Homo sapiens
1799	160210	G Protein-Coupled Receptor GPR44 (CRTH2)	NP_004769.1	2226	CNSRQAALAVSKFLAFLVP	Homo sapiens
1800	160210	G Protein-Coupled Receptor GPR44 (CRTH2)	NP_004769.1	2228	RGLPFTVTSIAFFNSVANPVL	Homo sapiens

1801	160210	Receptor GPR44 (CRTH2) G Protein-Coupled	NP_004769.1	2229	CSRPEEPRGPRLLGWLLGS	Homo sapiens
1802	160210	Receptor GPR44 (CRTH2) G Protein-Coupled	NP_004769.1	2230	CAASPQTGPLNRALSS	Homo sapiens
1803	160212	Receptor GPR44 (CRTH2) G Protein-Coupled	Q9Y2T5	444	KEINDRRARFPSHEVDSSRE	Homo sapiens
1804	160212	Receptor GPR52 G Protein-Coupled	Q9Y2T5	445	CVKDQEAQEPRKPRKRANS	Homo sapiens
1805	160212	Receptor GPR52 G Protein-Coupled	Q9Y2T5	446	RWTEWRILNMSSGIVNASER	Homo sapiens
1806	160212	Receptor GPR52 G Protein-Coupled	Q9Y2T5	622	HSCPLGFHYSVVDVCIFE	Homo sapiens
1807	160217	Receptor GPR52 G Protein-Coupled	AAD22410.1	161	GKVEKVMCFHNMSDDTWSAK	Homo sapiens
1808	160217	Receptor GPR55 G Protein-Coupled	AAD22410.1	162	RSIHILLGRRDHTQDWVQQK	Homo sapiens
1809	160217	Receptor GPR55 G Protein-Coupled	AAD22410.1	163	CRAKQSISFFLQLSM	Homo sapiens
1810	160217	Receptor GPR55 G Protein-Coupled	AAD22410.1	164	KEFRMNIRAHPRSRVQLVLQ	Homo sapiens
1811	160219	Receptor GPR55 G Protein-Coupled	AAC52028.1	2	AQRPTDVGQAEATRKAAR	Homo sapiens
1812	160219	Receptor GPR35 G Protein-Coupled	AAC52028.1	3	KEFQEASALAVAPRAKAHK	Homo sapiens
1813	160219	Receptor GPR35 G Protein-Coupled	AAC52028.1	123	GGFCFRSTRHNFNSMR	Homo sapiens
1814	160219	Receptor GPR35 G Protein-Coupled	AAC52028.1	125	ETIRRALYITSLSDANC	Homo sapiens
1815	160221	Receptor GPR35 G Protein-Coupled	LR6	335	FPPVLDGGGDDDEDAPCALEQ	Homo sapiens
1816	160221	Receptor GPR27 G Protein-Coupled	LR6	338	RGARRLLVLEEFKTEKRLC	Homo sapiens
1817	160221	Receptor GPR27 G Protein-Coupled	LR6	496	NASEPGSGGGGEEAALGLK	Homo sapiens
1818	160221	Receptor GPR27 G Protein-Coupled	O54897	515	GLRALACLPVAVMLAARRA	Mus musculus
1819	160221	Receptor GPR27 G Protein-Coupled	LR6	1291	RPAGPGRGARRLLVLE	Homo sapiens

1820	160222	G Protein-Coupled Receptor GPR72	NP_057624.1	1606	CQRPKPQEDGQSPV	Homo sapiens
1821	160222	G Protein-Coupled Receptor GPR72	NP_057624.1	1607	CNMIGDVITEQYFALRRK	Homo sapiens
1822	160222	G Protein-Coupled Receptor GPR72	NP_057624.1	1610	EGRADEQSAAALAVP	Homo sapiens
1823	160222	G Protein-Coupled Receptor GPR72	NP_057624.1	1611	QNFVGRRRYGAESQNPVTK	Homo sapiens
1824	160223	G Protein-Coupled Receptor G2A	NP_037477.1	1600	RIFRSIKQSMGLSAAQKAK	Homo sapiens
1825	160223	G Protein-Coupled Receptor G2A	NP_037477.1	1601	CDRFVAVVYALSRGR	Homo sapiens
1826	160223	G Protein-Coupled Receptor G2A	NP_037477.1	1604	ATDHSRQEVSRHKGWKE	Homo sapiens
1827	160223	G Protein-Coupled Receptor G2A	NP_037477.1	1605	KTDVTRLTHSRDTEELQS	Homo sapiens
1828	160224	Endothelin Type B Receptor-Like Protein 2 (ETBR-LP-2)	O60883	403	ETQEQQSRSKRGTEDEAK	Homo sapiens
1829	160224	Endothelin Type B Receptor-Like Protein 2 (ETBR-LP-2)	O60883	404	SPNPKDGGTDPDGGQLR	Homo sapiens
1830	160224	Endothelin Type B Receptor-Like Protein 2 (ETBR-LP-2)	O60883	405	CQLVTWRVRGPPGRKSE	Homo sapiens
1831	160224	Endothelin Type B Receptor-Like Protein 2 (ETBR-LP-2)	O60883	406	AANGSDNKLKTEVSS	Homo sapiens
1832	160225	Spingolipid Receptor Edg6	CAA04118.1	70	PRDSFRGSRSLSRMRE	Homo sapiens
1833	160225	Spingolipid Receptor Edg6	CAA04118.1	71	ERFATMVRPVAESGATKTSR	Homo sapiens
1834	160225	Spingolipid Receptor Edg6	CAA04118.1	72	RLVQASGGQKAPRPAAR	Homo sapiens
1835	160225	Spingolipid Receptor Edg6	CAA04118.1	73	RAVEAHSGASTDSSLRPD	Homo sapiens
1836	160225	Spingolipid Receptor Edg6	CAA04118.1	1914	IFRLVQASGGQKAPRPAAR	Homo sapiens
1837	160225	Spingolipid Receptor Edg6	CAA04118.1	1915	DSSLRPDRSFRGSRSLSRM	Homo sapiens
1838	160225	Spingolipid Receptor Edg6	CAA04118.1	1916	RSLSFRMREPLSSISVR	Homo sapiens
1839	160225	Spingolipid Receptor Edg6	CAA04118.1	1917	GPEDGGGLALRGLSVAASC	Homo sapiens
1840	160228	T-Cell Death-Associated Gene 8 (GPR65)	NP_003599.1	1625	ANIGSLCVSFLQPKKE	Homo sapiens
1841	160228	T-Cell Death-Associated Gene 8 (GPR65)	NP_003599.1	1626	ETIFNAVMLWEDETVE	Homo sapiens
1842	160228	T-Cell Death-Associated Gene 8 (GPR65)	NP_003599.1	1627	CNRKVYQAVRHINKATENKE	Homo sapiens



1843	160228	T-Cell Death-Associated Gene 8 (GPR65)	NP_003599.1	1628	CILEHAVNFEDHSNSGKR	Homo sapiens
1844	160228	T-Cell Death-Associated Gene 8 (GPR65)	NP_003599.1	1629	CNTSQRQRKRILSVSTKD	Homo sapiens
1845	160228	T-Cell Death-Associated Gene 8 (GPR65)	NP_003599.1	2303	CDAEKSNTFLCYDKYPLEK	Homo sapiens
1846	160300	Encephalopsin	NP_055137.1	2131	CTVDWKSKDANDSSFV	Homo sapiens
1847	160300	Encephalopsin	NP_055137.1	2132	CVEDLQTIQVILKLYEK	Homo sapiens
1848	160300	Encephalopsin	NP_055137.1	2133	CQRPADKLPAAAGSEMQRIP	Homo sapiens
1849	160300	Encephalopsin	NP_055137.1	2134	TSDESLSVDDSDKTIG	Homo sapiens
1850	160312	Spingolipid Receptor Edg5	O95136	1018	ERHVAIAKVLYGSDKSC	Homo sapiens
1851	160312	Spingolipid Receptor Edg5	O95136	1019	RSRDLRREVLRPLQC	Homo sapiens
1852	160312	Spingolipid Receptor Edg5	O95136	1020	QEHVNYTKETLETQET	Homo sapiens
1853	160312	Spingolipid Receptor Edg5	O95136	1021	GRRRVGTPGHHLLPLR	Homo sapiens
1854	160314	G Protein-Coupled Receptor GPR103	ENSMPRT221753	1922	MMRKKAKFSLRENPVETKG	Homo sapiens
1855	160314	G Protein-Coupled Receptor GPR103	ENSMPRT221753	1923	MMIEYSNFEKEYDDVTIKM	Homo sapiens
1856	160314	G Protein-Coupled Receptor GPR103	ENSMPRT221753	1924	CEQTEEEKKLRHLALFRSE	Homo sapiens
1857	160314	G Protein-Coupled Receptor GPR103	ENSMPRT221753	1925	KKRVGDGSLRTHGKEMSK	Homo sapiens
1858	160317	Neuropeptide FF 2 Receptor	Q9Y5X5	463	DRARRERFIMNEKWDNNSSE	Homo sapiens
1859	160317	Neuropeptide FF 2 Receptor	Q9Y5X5	464	RKNQEQWHVVSRRKKQKIK	Homo sapiens
1860	160317	Neuropeptide FF 2 Receptor	Q9Y5X5	465	RKSAEKPPQQLVMEELKE	Homo sapiens
1861	160317	Neuropeptide FF 2 Receptor	Q9Y5X5	500	RQSAGDRRLGLSLRQTAK	Homo sapiens
1862	160324	G Protein-Coupled Receptor	NP_076403.1	1619	DRFLKIIRPLRNIFLKKP	Homo sapiens
1863	160324	GPR86/GPR94/P2Y13 G Protein-Coupled Receptor	NP_076403.1	1620	MILSNKEATPSSVKKC	Homo sapiens
1864	160324	GPR86/GPR94/P2Y13 G Protein-Coupled Receptor	NP_076403.1	1622	VYDSYRKSCKSKDRKNN	Homo sapiens
1865	160324	GPR86/GPR94/P2Y13 G Protein-Coupled Receptor	NP_076403.1	1623	ARVPYTHSQTNNTKDC	Homo sapiens

1866	160324	G Protein-Coupled Receptor	NP_076403.1	1624	CMQGRKTTASSQENHSSQTD	Homo sapiens
1867	160329	GPR86/GPR94/P2Y13 Proteinase-Activated Receptor 4	O76067	1308	CANDSDTLELPDSSRA	Homo sapiens
1868	160329	Proteinase-Activated Receptor 4	O76067	1309	PLRARALGRRLALGLC	Homo sapiens
1869	160329	Proteinase-Activated Receptor 4	O76067	1310	LQRQTFRLARSDRVLC	Homo sapiens
1870	160329	Proteinase-Activated Receptor 4	O76067	1311	RDKVRAGLFQIRSPGDT	Homo sapiens
1871	160330	G Protein-Coupled- Receptor TM7XN1/GPR56	Q9Y653	1213	CELRDLQLLSQFLKHPQK	Homo sapiens
1872	160330	G Protein-Coupled- Receptor TM7XN1/GPR56	Q9Y653	1214	TSVRFMGDMVSEEDR	Homo sapiens
1873	160330	G Protein-Coupled- Receptor TM7XN1/GPR56	Q9Y653	1215	RQEEEQSEIMEYSVLLP	Homo sapiens
1874	160330	G Protein-Coupled- Receptor TM7XN1/GPR56	Q9Y653	1216	RTLFQRTKGRSGAEKR	Homo sapiens
1875	160387	Glucagon-Like Peptide 2 Receptor	O95838	1312	GSLLLEETTRKWAQYKQAC	Homo sapiens
1876	160387	Glucagon-Like Peptide 2 Receptor	O95838	1313	QTIENATDIWQDDSEC	Homo sapiens
1877	160387	Glucagon-Like Peptide 2 Receptor	O95838	1315	CPKKLSEGDGAELRK	Homo sapiens
1878	160387	Glucagon-Like Peptide 2 Receptor	O95838	1316	QQDHARWPRGSSLSEC	Homo sapiens
1879	160388	Latrophilin-1	O94910	1121	EPTSTHSEHQSGAWC	Homo sapiens
1880	160388	Latrophilin-1	O94910	1126	CEPREVRRVQWPATQ	Homo sapiens
1881	160388	Latrophilin-1	O94910	1129	RSQDFPPGDGGPEPPR	Homo sapiens
1882	160388	Latrophilin-1	O94910	1131	CTAEDGATSRPLSSPPGRDS	Homo sapiens
1883	160388	Latrophilin-1	O94910	1706	RESAGKNYNKMHKRETC	Homo sapiens
1884	160388	Latrophilin-1	O94910	1707	RDSPSYDSSPEGPSEALP	Homo sapiens
1885	160390	Cadherin EGF LAG Seven-Pass G-Type Receptor 2 (CELSR2)	NP_001399.1	1938	QVGPCRSLSRGRGSSGAC	Homo sapiens
1886	160390	Cadherin EGF LAG Seven-Pass G-Type Receptor 2 (CELSR2)	NP_001399.1	1939	CRDAGTELTGHLVPHHDGLR	Homo sapiens

1887	160390	Cadherin EGF LAG Seven-Pass G-Type Receptor 2 (CELSR2)	NP_001399.1	1940	CKLAQAPGLRAGERSPEESL	Homo sapiens
1888	160390	Cadherin EGF LAG Seven-Pass G-Type Receptor 2 (CELSR2)	NP_001399.1	1942	RVSDTPEGVNSLDPHGES	Homo sapiens
1889	160390	Cadherin EGF LAG Seven-Pass G-Type Receptor 2 (CELSR2)	NP_001399.1	1943	RSGKSQSPYIPELLREES	Homo sapiens
1890	160397	Latrophilin-2	O95490	1132	CEALDSKGIKWPQTQR	Homo sapiens
1891	160397	Latrophilin-2	O95490	1133	DILDAGLQELKPSEKD	Homo sapiens
1892	160397	Latrophilin-2	O95490	1136	RTHSLLYQPQKKV/KSE	Homo sapiens
1893	160397	Latrophilin-2	O95490	1137	RDSPYPESPDMEEEDL	Homo sapiens
1894	160411	G Protein-Coupled Receptor GPR48	NP_060960.1	1630	CQEGKMLRTLDSYNNIRD	Homo sapiens
1895	160411	G Protein-Coupled Receptor GPR48	NP_060960.1	1631	CDSYANLNTEDNSLQD	Homo sapiens
1896	160411	G Protein-Coupled Receptor GPR48	NP_060960.1	1632	KGTAADAAVNTSTLENEE	Homo sapiens
1897	160411	G Protein-Coupled Receptor GPR48	NP_060960.1	1633	ERLSAKDIMKNGKSNHLK	Homo sapiens
1898	160411	G Protein-Coupled Receptor GPR48	NP_060960.1	1634	CNLEKEDLSENGSSMIK	Homo sapiens
1899	160411	G Protein-Coupled Receptor GPR48	NP_060960.1	1635	KRRVTIKSGSVSVSIS	Homo sapiens
1900	160411	G Protein-Coupled Receptor GPR48	NP_060960.1	1636	CGTQSAHSDYADEEDS	Homo sapiens
1901	160411	G Protein-Coupled Receptor GPR48	NP_060960.1	1637	DEEDSFVSDSSDQVQAC	Homo sapiens
1902	160435	LS160435 Receptor	LR80	1918	ATILKLLRTEEAHGREQRR	Homo sapiens
1903	160435	LS160435 Receptor	LR80	1919	CRRVPRDTLDIRRESLFSAR	Homo sapiens
1904	160435	LS160435 Receptor	LR80	1920	PLSSKRWRRRRYAVAAAC	Homo sapiens
1905	160435	LS160435 Receptor	LR80	1921	CRRMGPRSPSVIFMINL	Homo sapiens
1906	160889	Platelet Activating Receptor Homolog (H963)	O14626	1223	MMIPIKDIKEKSNVGC	Homo sapiens
1907	160889	Platelet Activating Receptor Homolog (H963)	O14626	1224	CLVIRQLYRNKDNENYP	Homo sapiens
1908	160889	Platelet Activating Receptor	O14626	1225	CSTRISLFKAKEATLL	Homo sapiens

1909	160889	Homolog (H963) Platelet Activating Receptor	O14626	1226	ETFASPKETKAQKEKLR	Homo sapiens
1910	161024	Homolog (H963) Protein A	NP_062832.1	1690	ESRAVGLPLGLSAGRRC	Homo sapiens
1911	161024	Protein A	NP_062832.1	1691	EDARGKRSSLDGSESAK	Homo sapiens
1912	161024	Protein A	NP_062832.1	1692	RTVWEGCVAIMSEEDGD	Homo sapiens
1913	161024	Protein A	NP_062832.1	1693	CKVRFDANGATGPGSRD	Homo sapiens
1914	161024	Protein A	NP_062832.1	1694	RRLSHDETINIFSTPRE	Homo sapiens
1915	161024	Protein A	NP_062832.1	1695	GGPEYLGQRHRLDEED	Homo sapiens
1916	161024	Protein A	NP_062832.1	1696	REEITFIDETPLSP	Homo sapiens
1917	161024	Protein A	NP_062832.1	1697	RRRPGLGSPRRSLGSPE	Homo sapiens
1918	161214	Galanin Receptor GalR3	AAC35944.1	202	RYGALELCVPAWEDARR	Homo sapiens
1919	161214	Galanin Receptor GalR3	AAC35944.1	203	GAAAAEARRRATGRAGR	Homo sapiens
1920	161214	Galanin Receptor GalR3	AAC35944.1	204	ASRHFRRFRRLWPC	Homo sapiens
1921	161214	Galanin Receptor GalR3	AAC35944.1	205	RARRALRRVRPASSGPP	Homo sapiens
1922	161221	Urotensin-II Receptor (GPR14)	LR15	371	ERYAAVLRPLDVTQRPKG	Homo sapiens
1923	161221	Urotensin-II Receptor (GPR14)	LR15	372	RAYRRSQRASFKRARRPGAR	Homo sapiens
1924	161221	Urotensin-II Receptor (GPR14)	LR15	373	RNYRDHLRGVRGPGSG	Homo sapiens
1925	161221	Urotensin-II Receptor (GPR14)	LR15	374	RARFQRCSGRSLSCSPQPTD	Homo sapiens
1926	161249	G Protein-Coupled Receptor GPR66	LR20	394	ARGHFDPEDLNLITDEALRLK	Homo sapiens
1927	161249	G Protein-Coupled Receptor GPR66	LR20	395	IGLRIRRRERLLMQEAKGRG	Homo sapiens
1928	161249	G Protein-Coupled Receptor GPR66	LR20	396	RGSAAAARSRYTCRLQQH	Homo sapiens
1929	161249	G Protein-Coupled Receptor GPR66	LR20	397	ALCLGACCHRLRPRHSS	Homo sapiens
1930	161251	Purinergic Receptor P2Y10	O00398	859	CFELLKPFRRARDWKRRYD	Homo sapiens
1931	161251	Purinergic Receptor P2Y10	O00398	860	PFPILRSTDLNNKSC	Homo sapiens
1932	161251	Purinergic Receptor P2Y10	O00398	862	QLSRHGSSVTRSRLMSKE	Homo sapiens
1933	161251	Purinergic Receptor P2Y10	O00398	863	LRQPPMAFQGIGSERQK	Homo sapiens
1934	161293	G Protein-Coupled Receptor Ls161293 (Herpes virus)	NP_042597.1	1672	YYDDLDDVDVEESAPC	Equine herpesvirus 2

1935	161293	G Protein-Coupled Receptor Ls161293 (Herpes virus)	NP_042597.1	1674	CDPYYPPEMSTNVWRRRAHVAK	Equine herpesvirus 2
1936	161293	G Protein-Coupled Receptor Ls161293 (Herpes virus)	NP_042597.1	1675	CYVVIIRLLRRPSKK	Equine herpesvirus 2
1937	161293	G Protein-Coupled Receptor Ls161293 (Herpes virus)	NP_042597.1	1676	CKYIPFLSGDGEGKEGPT	Equine herpesvirus 2
1938	177147	Neuromedin K Receptor-Like (NK-4R)	NP_006670.1	1820	RNLTSSPAPTASPAPS	Homo sapiens
1939	177147	Neuromedin K Receptor-Like (NK-4R)	NP_006670.1	1821	PSWTPSPRPGPAHPFLQPP	Homo sapiens
1940	177147	Neuromedin K Receptor-Like (NK-4R)	NP_006670.1	1822	RSSHQKRGTTTRDVGSNVC	Homo sapiens
1941	177147	Neuromedin K Receptor-Like (NK-4R)	NP_006670.1	1823	KSTTTASFVSSSHMSVEE	Homo sapiens
1942	177168	Cysteinyl Leukotriene CYSLT1 Receptor	Q9Y271	1317	TSPFLMAKPGQKDEKNNTKC	Homo sapiens
1943	177168	Cysteinyl Leukotriene CYSLT1 Receptor	Q9Y271	1318	KKSMKKNLSSHKKAIG	Homo sapiens
1944	177168	Cysteinyl Leukotriene CYSLT1 Receptor	Q9Y271	1319	QRTIHLHLHNETKPC	Homo sapiens
1945	177168	Cysteinyl Leukotriene CYSLT1 Receptor	Q9Y271	1320	RKHSLSSTVYVPRKKASLPE	Homo sapiens
1946	177191	Histamine H3 Receptor	Q9Y5N1	474	RAVSVRAQQGDTTRRAVRK	Homo sapiens
1947	177191	Histamine H3 Receptor	Q9Y5N1	475	QRRTRLRLDGAAREAAAGPE	Homo sapiens
1948	177191	Histamine H3 Receptor	Q9Y5N1	476	QSFQIRFRLSRDRKVA	Homo sapiens
1949	177191	Histamine H3 Receptor	Q9Y5N1	477	RYGVGEAAVGAEGEATLG	Homo sapiens
1950	177191	Histamine H3 Receptor	Q9Y5N1	1477	SSRGTERPRSLKRGSKPSAS	Homo sapiens
1951	177191	Histamine H3 Receptor	Q9Y5N1	1479	KPSASSASLEKRMKMVS	Homo sapiens
1952	177387	G Protein-Coupled Receptor ORF4	NP_064540.1	2052	RTLFSFYFRDTPRANR	Homo sapiens
1953	177387	G Protein-Coupled Receptor ORF4	NP_064540.1	2053	RPEMSRGLLAVRGAFV	Homo sapiens
1954	177387	G Protein-Coupled Receptor ORF4	NP_064540.1	2059	CAVLSHRRRAQPWALLV	Homo sapiens
1955	177387	G Protein-Coupled Receptor ORF4	NP_064540.1	2733	RVLVSDSLFVICALSL	Homo sapiens

1956	180956	Lysophosphatidic Acid Receptor Edg7	AAF00530.1	1014	KRKTNVLSPTSGSIS	Homo sapiens
1957	180956	Lysophosphatidic Acid Receptor Edg7	AAF00530.1	1015	CFSQENPERRPSRIPST	Homo sapiens
1958	180956	Lysophosphatidic Acid Receptor Edg7	AAF00530.1	1016	SYKDEDMYGTMKKMIC	Homo sapiens
1959	180956	Lysophosphatidic Acid Receptor Edg7	AAF00530.1	1017	VERHMSIMRMVRVHSN	Homo sapiens
1960	189873	G Protein-Coupled Receptor GPR78	LR37	443	CQRMDVTIMKALALLAD	Homo sapiens
1961	189873	G Protein-Coupled Receptor GPR78	LR37	528	CSLRLPPEPERPRFAAFTAT	Homo sapiens
1962	189873	G Protein-Coupled Receptor GPR78	LR37	533	RGPLPPGICAHSAQGALRR	Homo sapiens
1963	189873	G Protein-Coupled Receptor GPR78	LR37	534	CRQAQARDLGAPWAVGLRSL	Homo sapiens
1964	189874	Neuromedin U Receptor 2	LR28	420	QQKLEDPFQKHLNSTEE	Homo sapiens
1965	189874	Neuromedin U Receptor 2	LR28	422	KDKSLEADEGNANIQRPC	Homo sapiens
1966	189874	Neuromedin U Receptor 2	LR28	423	SQHDPQLPPAQRNIFLTC	Homo sapiens
1967	189874	Neuromedin U Receptor 2	LR28	487	ILHPFRAKLQSTRRLALR	Homo sapiens
1968	189884	G Protein-Coupled Receptor Ls189884	LR27	415	CKKRGTKTNLRNQIRSK	Homo sapiens
1969	189884	G Protein-Coupled Receptor Ls189884	LR27	418	EKPSSPSSGKGKTEKAE	Homo sapiens
1970	189884	G Protein-Coupled Receptor Ls189884	LR27	419	PSVQDNDPIPWEHEDQETGE	Homo sapiens
1971	189884	G Protein-Coupled Receptor Ls189884	LR27	486	KKPPTVSESQETPAGNSEG	Homo sapiens
1972	189884	G Protein-Coupled Receptor Ls189884	LR27	1832	LVMSEEFREGKGVWK	Homo sapiens
1973	189884	G Protein-Coupled Receptor Ls189884	LR27	1833	GLPDKVPSPASPIEK	Homo sapiens
1974	189884	G Protein-Coupled Receptor Ls189884	LR27	1834	PDVEQFWHERDTPSVQ	Homo sapiens
1975	189884	G Protein-Coupled Receptor Ls189884	LR27	1835	RHHEGVEMCLVDVPAVAEE	Homo sapiens
1976	189895	G Protein-Coupled Receptor GPR61	AAK12637.1	1685	RVPQTPGPSTASGVPE	Homo sapiens
1977	189895	G Protein-Coupled Receptor GPR61	AAK12637.1	1686	ETPRQRSESLSRSTMVTS	Homo sapiens

1778	189895	Receptor GPR61	AAK12637.1	1687	SSGAPQTTPIRTFGGK	Homo sapiens
1779	189895	G Protein-Coupled Receptor GPR61	AAK12637.1	1688	KPAPEELRLPSREGSIE	Homo sapiens
1780	189895	G Protein-Coupled Receptor GPR61	AAK12637.1	1689	CPSESWSRPLSPKQE	Homo sapiens
1781	189900	Spingolipid Receptor Edg8	LR1	312	TGKLRGARYQPGAGLRAD	Homo sapiens
1782	189900	Spingolipid Receptor Edg8	LR1	316	ALERSLTMARRGPAPVSS	Homo sapiens
1783	189900	Spingolipid Receptor Edg8	LR1	317	DGSFSGSERSSPQRDGLD	Homo sapiens
1784	189900	Spingolipid Receptor Edg8	LR1	318	CGRDPGSGQSSASAAEASG	Homo sapiens
1785	189901	G Protein-Coupled Receptor Ls189901 (HEOAD54)	ENSP00000071589	2266	ASRKAEAIQKLVQGEVS	Homo sapiens
1786	189901	G Protein-Coupled Receptor Ls189901 (HEOAD54)	ENSP00000071589	2270	SCLSYRVGTKPSASLR	Homo sapiens
1787	189901	G Protein-Coupled Receptor Ls189901 (HEOAD54)	ENSP00000071589	2271	RVDYLLHETWRFGAAAC	Homo sapiens
1788	189901	G Protein-Coupled Receptor Ls189901 (HEOAD54)	ENSP00000071589	2272	HQSRALLGLTRGRQGPVSD	Homo sapiens
1789	189901	G Protein-Coupled Receptor Ls189901 (HEOAD54)	ENSP00000071589	2273	CIHTRPWTSNTVFLVSL	Homo sapiens
1790	189901	G Protein-Coupled Receptor Ls189901 (HEOAD54)	ENSP00000071589	2274	RGRQGPVSDSSVQPSR	Homo sapiens
1791	189904	Purinergic Receptor P2U2 (GPR91)	AAK29080.1	2108	IDRYLIKYPFREHLLQKKE	Homo sapiens
1792	189904	Purinergic Receptor P2U2 (GPR91)	AAK29080.1	2109	TDNGTTCNDFASSGDPN	Homo sapiens
1793	189904	Purinergic Receptor P2U2 (GPR91)	AAK29080.1	2110	FLKQRNRQVATALPLE	Homo sapiens
1794	189904	Purinergic Receptor P2U2 (GPR91)	AAK29080.1	2111	RNVRIASRLGSWKQYQC	Homo sapiens
1795	189904	Purinergic Receptor P2U2 (GPR91)	AAK29080.1	2112	GDHFRDMLMNLRLHNFKS	Homo sapiens

1996	189920	G Protein-Coupled Receptor GPR63 (PSP24 beta)	AAK12639.2	1721	CVAFLAVGNPDQLIPSR	Homo sapiens
1997	189920	G Protein-Coupled Receptor GPR63 (PSP24 beta)	AAK12639.2	1722	NTLRHNALRIHSYPEGIC	Homo sapiens
1998	189920	G Protein-Coupled Receptor GPR63 (PSP24 beta)	AAK12639.2	1723	QASKLGLMSLQRPQMSID	Homo sapiens
1999	189920	G Protein-Coupled Receptor GPR63 (PSP24 beta)	AAK12639.2	1724	DMMPKSFKFLPQLPGHTKRR	Homo sapiens
2000	189945	G Protein-Coupled Receptor DJ287g14.2	Q9Y3K0	1715	QNLKDPVQIKIKHTRTQE	Homo sapiens
2001	189945	G Protein-Coupled Receptor DJ287g14.2	Q9Y3K0	1716	KNKSFGGWNTSGCVAHRD	Homo sapiens
2002	189945	G Protein-Coupled Receptor DJ287g14.2	Q9Y3K0	1717	RNNNEVYGKESYGKEKGDE	Homo sapiens
2003	189945	G Protein-Coupled Receptor DJ287g14.2	Q9Y3K0	1718	CGRNGKRSNRTLREEVLR	Homo sapiens
2004	189945	G Protein-Coupled Receptor DJ287g14.2	Q9Y3K0	1719	TSKSKSSSTTYFKRNSHTD	Homo sapiens
2005	189945	G Protein-Coupled Receptor DJ287g14.2	Q9Y3K0	1720	DKSLSLAHADGDQTS	Homo sapiens
2006	190026	G Protein-Coupled Receptor JEG18	LR24	407	LFPLLRTSDDTPGNRTKC	Homo sapiens
2007	190026	G Protein-Coupled Receptor JEG18	LR24	408	QDKYPMAQDGLGEKQKALK	Homo sapiens
2008	190026	G Protein-Coupled Receptor JEG18	LR24	409	SFPLDFLVKSNEIKSC	Homo sapiens
2009	190026	G Protein-Coupled Receptor JEG18	LR24	410	RRRLSRQDLHDSIQLHAK	Homo sapiens
2010	190031	G Protein-Coupled Receptor VLGR1	AAD55586.1	1725	KGEAKLDSRAKDVLTIQE	Homo sapiens
2011	190031	G Protein-Coupled Receptor VLGR1	AAD55586.1	1727	DHKEQPIVTENAERQLVVKD	Homo sapiens
2012	190031	G Protein-Coupled Receptor VLGR1	AAD55586.1	1728	EDFEEQTLILFDGERERK	Homo sapiens
2013	190031	G Protein-Coupled	AAD55586.1	1729	EGKEGDYIRIPERLLDVQD	Homo sapiens



2014	190168	Receptor VLGR1	AAF27278.1	324	SEAYADGIEGYDILVACSSS	Homo sapiens
2015	190168	G Protein-Coupled Receptor GPR58	AAF27278.1	326	NNLRNQNNGVKKDKAAK	Homo sapiens
2016	190168	G Protein-Coupled Receptor GPR58	AAF27278.1	379	DPFLNFSTPVVLFDAIT	Homo sapiens
2017	190168	G Protein-Coupled Receptor GPR58	AAF27278.1	380	GKIFSCFHNTILCMQKE	Homo sapiens
2018	190170	G Protein-Coupled Receptor GPR57	AAF27279.1	327	CPKFVNKILSSHQPLFS	Homo sapiens
2019	190170	G Protein-Coupled Receptor GPR57	AAF27279.1	328	KQHARVISHVPENTKGAVKK	Homo sapiens
2020	190170	G Protein-Coupled Receptor GPR57	AAF27279.1	329	ENITGAVKKHLSKKKDRKA	Homo sapiens
2021	190170	G Protein-Coupled Receptor GPR57	AAF27279.1	330	CKFHTSFDMMRLTSI	Homo sapiens
2022	190188	G Protein-Coupled Receptor LGR6	LR36	439	ENHDQDLDLQLEMEDSKP	Homo sapiens
2023	190188	G Protein-Coupled Receptor LGR6	LR36	440	NPHFRDDLRLRPRAAGDS	Homo sapiens
2024	190188	G Protein-Coupled Receptor LGR6	LR36	442	EDLHLDDEESSKRPLGLLAR	Homo sapiens
2025	190188	G Protein-Coupled Receptor LGR6	LR36	621	DSGPLAYAAAGELEKSSC	Homo sapiens
2026	190414	G Protein-coupled Receptor GPR101	CAC33098.1	1836	CAARRQHALLYNVKRSLE	Homo sapiens
2027	190414	G Protein-coupled Receptor GPR101	CAC33098.1	1837	DGSLKAKEGSTGTSESSV	Homo sapiens
2028	190414	G Protein-coupled Receptor GPR101	CAC33098.1	1838	CSIDLGEDGMEFGEDDIN	Homo sapiens
2029	190414	G Protein-coupled Receptor GPR101	CAC33098.1	1839	SEDDVEAVNIPESLPPS	Homo sapiens
2030	190414	G Protein-coupled Receptor GPR101	CAC33098.1	1840	MHTIKKEIQDMLKKFFC	Homo sapiens
2031	190414	G Protein-coupled Receptor GPR101	CAC33098.1	1841	KEDSHPDLPGTGGTEG	Homo sapiens
2032	190418	Inflammation-Related G Protein-Coupled Receptor	LR8	343	RQVKRAAQALDQYKLRQAS	Homo sapiens

2033	190418	EX33 Inflammation-Related G Protein-Coupled Receptor	LR8	344	RTDEAMPGRFQELDSRLASG	Homo sapiens
2034	190418	EX33 Inflammation-Related G Protein-Coupled Receptor	LR8	345	DSSEVGDDQINSKRAKQMAEK	Homo sapiens
2035	190418	EX33 Inflammation-Related G Protein-Coupled Receptor	LR8	346	KAQPIKGARRAPDSSEFGK	Homo sapiens
2036	190419	EX33 G Protein-Coupled Receptor Ls190419	CAC33085.1	2716	RRKSNFRLRGYSTGKT	Homo sapiens
2037	190419	G Protein-Coupled Receptor Ls190419	CAC33085.1	2717	RRQKSSYNYLLALAAAD	Homo sapiens
2038	190419	G Protein-Coupled Receptor Ls190419	CAC33085.1	2719	CFLTSPYVWWPNIWT	Homo sapiens
2039	190419	G Protein-Coupled Receptor Ls190419	CAC33085.1	2725	CSIFFILNSIIVYKLR	Homo sapiens
2040	190421	MrgX1 G Protein-Coupled Receptor	AAK91804.1	2754	GRLIYSLLSFISIPH	Homo sapiens
2041	190421	MrgX1 G Protein-Coupled Receptor	AAK91804.1	2755	FFLFLWIHVVDRE	Homo sapiens
2042	190421	MrgX1 G Protein-Coupled Receptor	AAK91804.1	2756	MDPTISTLDTLPT	Homo sapiens
2043	190427	Cysteinyl Leukotriene CYSLT2 Receptor	LR49	471	ASSIMLLDSGSEQNGSVTSC	Homo sapiens
2044	190427	Cysteinyl Leukotriene CYSLT2 Receptor	LR49	472	RVLLKVEVPESGLRVSHRK	Homo sapiens
2045	190427	Cysteinyl Leukotriene CYSLT2 Receptor	LR49	473	KDRLLKSALRKGHQPQAKATKC	Homo sapiens
2046	190427	Cysteinyl Leukotriene CYSLT2 Receptor	LR49	512	MEPNGTFSNNNSRNC	Homo sapiens
2047	190427	Cysteinyl Leukotriene CYSLT2 Receptor	NP_065110.1	2253	CTIENFKREFFPIVYLIF	Homo sapiens
2048	190427	Cysteinyl Leukotriene CYSLT2 Receptor	NP_065110.1	2254	GVLGNGLSYVFLQPYK	Homo sapiens
2049	190427	Cysteinyl Leukotriene CYSLT2 Receptor	NP_065110.1	2255	ADYYLRGSNWIFGDLAC	Homo sapiens
2050	190427	Cysteinyl Leukotriene CYSLT2 Receptor	NP_065110.1	2256	FRLHVTIRSRAWILC	Homo sapiens

2051	190427	Receptor Cysteinyl Leukotriene CysLT2	NP_065110.1	2257	CGIIWILIMASSIMLLDSGS	Homo sapiens
2052	190427	Receptor Cysteinyl Leukotriene CysLT2	NP_065110.1	2258	CLELNLYKIAKLQTMNYIAL	Homo sapiens
2053	190427	Receptor Cysteinyl Leukotriene CysLT2	NP_065110.1	2260	VSHRKALTTIITLIFFLC	Homo sapiens
2054	190427	Receptor Cysteinyl Leukotriene CysLT2	NP_065110.1	2261	CFLPYHLRTVHLTWKVGGL	Homo sapiens
2055	190427	Receptor Cysteinyl Leukotriene CysLT2	NP_065110.1	2262	CKDRLHKALVITLALA	Homo sapiens
2056	190427	Receptor Cysteinyl Leukotriene CysLT2	NP_065110.1	2263	YFAGENFKDRILKSALRKG	Homo sapiens
2057	190427	Receptor Cysteinyl Leukotriene CysLT2	NP_065110.1	2264	HPQKAKTKCVFPVSVWLKKE	Homo sapiens
2058	190437	Receptor G Protein-Coupled Receptor C5L2	LR31	429	DSVSYEYGDYSDLSDRPVDC	Homo sapiens
2059	190437	Receptor G Protein-Coupled Receptor C5L2	LR31	430	RESQGQDESVDKSKTSKSHD	Homo sapiens
2060	190437	Receptor G Protein-Coupled Receptor C5L2	LR31	431	PSAIYRRLHQEHFARLQC	Homo sapiens
2061	190437	Receptor G Protein-Coupled Receptor C5L2	LR31	432	CHWALRESQGQDESVDKSKS	Homo sapiens
2062	190437	Receptor G Protein-Coupled Receptor C5L2	NP_060955.1	2818	MGNDVSYEYGDYSDLSDRPVDC	Homo sapiens
2063	190438	Receptor G Protein-Coupled Receptor Ls190438	ENSP00000080322	2585	TERLKIRWHTSDNQVRPQAC	Homo sapiens
2064	190484	Receptor G Protein-Coupled Receptor Ls190484	LR33	434	EADLGATGHRPRTLELDED	Homo sapiens
2065	190484	Receptor G Protein-Coupled Receptor Ls190484	LR33	435	RTCHRRQQQPAACRGFARVAR	Homo sapiens
2066	190484	Receptor G Protein-Coupled Receptor Ls190484	LR33	436	EERPQSFPTPEQTQLDSEG	Homo sapiens
2067	190484	Receptor G Protein-Coupled Receptor Ls190484	LR33	437	RSDPTAQPLNPTAQPLQSD	Homo sapiens
2068	190595	Receptor G Protein-Coupled Receptor SH120	NP_057418.1	1730	RNVTDIDILALERLLG	Homo sapiens
2069	190595	Receptor G Protein-Coupled Receptor SH120	NP_057418.1	1731	KKKRMAMARRTMFQKGE	Homo sapiens

2070	190595	G Protein-Coupled Receptor SH120	NP_057418.1	1732	KSVTTSASGSENLTIIQQE	Homo sapiens
2071	190595	G Protein-Coupled Receptor SH120	NP_057418.1	1733	EVDALFELSRLFLETAD	Homo sapiens
2072	190595	G Protein-Coupled Receptor SH120	NP_057418.1	1734	DRVGKTDVPVTRGIEIT	Homo sapiens
2073	190599	G Protein-Coupled Receptor GPRC5B	O75205	411	VRLPFIKEKEKKSPVGLH	Homo sapiens
2074	190599	G Protein-Coupled Receptor GPRC5B	O75205	412	DEHNAALRTAGFPNGSLGKR	Homo sapiens
2075	190599	G Protein-Coupled Receptor GPRC5B	O75205	413	GKRPSGSLGKRPSAPFRSNV	Homo sapiens
2076	190599	G Protein-Coupled Receptor GPRC5B	O75205	414	SQPRMRETAFEEDVQLPR	Homo sapiens
2077	190602	G Protein-Coupled Receptor GPCR150	CAB55314.1	542	GDPAIYQSLKAQNAYSRHC	Homo sapiens
2078	190602	G Protein-Coupled Receptor GPCR150	CAB55314.1	543	PFSSHSSYTVRSKKIFLSKL	Homo sapiens
2079	190602	G Protein-Coupled Receptor GPCR150	CAB55314.1	619	GKILLNLTGMRRKNTCGN	Homo sapiens
2080	190602	G Protein-Coupled Receptor GPCR150	CAB55314.1	620	EEVTLVQAIRITSYVME	Homo sapiens
2081	190623	Melanopsin	AAF24978.1	2137	CKNGESLWQRLQSE	Homo sapiens
2082	190623	Melanopsin	AAF24978.1	2138	RHSRPYPYSRTHIRST	Homo sapiens
2083	190623	Melanopsin	AAF24978.1	2139	TSHTSNLSWISIRRRQE	Homo sapiens
2084	190623	Melanopsin	AAF24978.1	2140	DLEAKAPRPQGHEAET	Homo sapiens
2085	190627	G Protein-Coupled Receptor GPR41 & GPR42	NP_005295.1	1735	KLQRRPVAVDVLLNLIASD	Homo sapiens
2086	190627	G Protein-Coupled Receptor GPR41 & GPR42	NP_005295.1	1736	KTRPRLGQAGLVSVAC	Homo sapiens
2087	190627	G Protein-Coupled Receptor GPR41 & GPR42	NP_005295.1	1737	EFSGDISHSQGTNGTC	Homo sapiens
2088	190627	G Protein-Coupled Receptor GPR41 & GPR42	NP_005295.1	1738	SRLVWILGRGGSHRRQRR	Homo sapiens
2089	190627	G Protein-Coupled Receptor GPR41 & GPR42	NP_005295.1	1739	GQWQQESSMELKEQKGG	Homo sapiens
2090	190627	G Protein-Coupled Receptor GPR41 & GPR42	NP_005295.1	1740	EEQRADRPAAERKTSEHSQGC	Homo sapiens
2091	190627	G Protein-Coupled	NP_005295.1	2569	MDTGPDQSYFSGNIHWVFSV	Homo sapiens

2092	190701	Receptor GPR41 & GPR42 C-C Chemokine Receptor 11	AAF61299.1	1441	VAIVAYYKKQRTKTDV	Homo sapiens
2093	190701	C-C Chemokine Receptor 11	AAF61299.1	1442	VATKVPSSQSGVGKPCWII	Homo sapiens
2094	190701	C-C Chemokine Receptor 11	AAF61299.1	1443	CNMSKRMDIAIQVTESI	Homo sapiens
2095	190701	C-C Chemokine Receptor 11	AAF61299.1	1444	RQSVEEFPDSEGPTEP	Homo sapiens
2096	190705	G Protein-Coupled Receptor SALPR	NP_057652.1	1741	GHPPSGGAESADTEARVR	Homo sapiens
2097	190705	G Protein-Coupled Receptor SALPR	NP_057652.1	1742	HSVASALKSHRTRGHGRGDC	Homo sapiens
2098	190705	G Protein-Coupled Receptor SALPR	NP_057652.1	1743	KGGAAVAGGRPTGASARR	Homo sapiens
2099	190705	G Protein-Coupled Receptor SALPR	NP_057652.1	1744	CLVRREFRKALKSLLWR	Homo sapiens
2100	190705	G Protein-Coupled Receptor SALPR	NP_057652.1	1745	RPFTATTKPEHEDQGLQ	Homo sapiens
2101	190711	G Protein-Coupled Receptor GPR85 (SREB2)	CAB82307.1	339	AFPPVLDVGTYSFIREEDQC	Homo sapiens
2102	190711	G Protein-Coupled Receptor GPR85 (SREB2)	CAB82307.1	340	HDRRKMKPVQFVAASQN	Homo sapiens
2103	190711	G Protein-Coupled Receptor GPR85 (SREB2)	CAB82307.1	341	RRRLVLDEFKMEKRISR	Homo sapiens
2104	190711	G Protein-Coupled Receptor GPR85 (SREB2)	CAB82307.1	342	LRRCFSTILLYCRKSRLPRE	Homo sapiens
2105	190725	G Protein-Coupled Receptor GPR26	LR26	554	PLTLAGVVARQPAGDRLC	Homo sapiens
2106	190725	G Protein-Coupled Receptor GPR26	LR26	555	CSRRPDERLRFVFTGA	Homo sapiens
2107	190725	G Protein-Coupled Receptor GPR26	LR26	557	CKEILNRLHRRSIHSSG	Homo sapiens
2108	190725	G Protein-Coupled Receptor GPR26	LR26	567	CLEEQRRRRQRATKKIST	Homo sapiens
2109	190741	Sreb3	LR9	516	EPEEVSGALSPPSASAYVK	Homo sapiens
2110	190741	Sreb3	LR9	519	NGHAASRRLLGMDEVKGEK	Homo sapiens
2111	190741	Sreb3	LR9	526	KKCLRTHAPCWGTGGAPAPR	Homo sapiens
2112	190741	Sreb3	LR9	527	VLMAATHAVVGKLLFEYR	Homo sapiens

2113	190742	G Protein-Coupled Receptor H7BA62	LR23	550	RRAPGPSDTFVFNALAD	Homo sapiens
2114	190742	G Protein-Coupled Receptor H7BA62	LR23	551	QRRQRRRQDSRVVARSVR	Homo sapiens
2115	190742	G Protein-Coupled Receptor H7BA62	LR23	552	RREPRQALAGTFRDLRSR	Homo sapiens
2116	190742	G Protein-Coupled Receptor H7BA62	LR23	553	KQVGRRWVASNPRESRPS	Homo sapiens
2117	190743	G Protein-Coupled Receptor GPRC5D	LR32	568	KDCIESTGDYFLLCDAEGP	Homo sapiens
2118	190743	G Protein-Coupled Receptor GPRC5D	LR32	569	VENQELSRGTFLGDSGR	Homo sapiens
2119	190743	G Protein-Coupled Receptor GPRC5D	LR32	570	GDSGSREVLLQEKQKKNHA	Homo sapiens
2120	190743	G Protein-Coupled Receptor GPRC5D	LR32	571	SMILRGNPQFQRQPWDDP	Homo sapiens
2121	190744	G Protein-Coupled Receptor GPRC5C	LR34	529	KVPSEELTSSSHGPPPTAR	Homo sapiens
2122	190744	G Protein-Coupled Receptor GPRC5C	LR34	532	RGSGEGGPQGNSSAGWAV	Homo sapiens
2123	190744	G Protein-Coupled Receptor GPRC5C	LR34	535	QDTKKRSLLGTVFFLLGT	Homo sapiens
2124	190744	G Protein-Coupled Receptor GPRC5C	LR34	538	KEQKGQSMFVENKAFSMDE	Homo sapiens
2125	190745	G Protein-Coupled Receptor LGR7	LR40	560	TATEIRNQVKKEMILAKR	Homo sapiens
2126	190745	G Protein-Coupled Receptor LGR7	LR40	561	NYRQRKSMDSKGQKYAPS	Homo sapiens
2127	190745	G Protein-Coupled Receptor LGR7	LR40	565	SCSNLTVLVMIRKNKINHNLN	Homo sapiens
2128	190745	G Protein-Coupled Receptor LGR7	LR40	566	DELDLGSNKIENLPPIFKD	Homo sapiens
2129	190748	GPCR Ls190748	LR47	546	QLSSPSRPTQKTLCSLR	Homo sapiens
2130	190748	GPCR Ls190748	LR47	547	DMLKIASMHQKIRKMEHAG	Homo sapiens
2131	190748	GPCR Ls190748	LR47	548	AGGYRSPRTSPDFKALRTVS	Homo sapiens
2132	190748	GPCR Ls190748	LR47	549	RESSCHIVTISSEFDG	Homo sapiens
2133	190748	GPCR Ls190748	LR47	1481	GVKKVLTSLFLLSARNC	Homo sapiens
2134	190748	GPCR Ls190748	LR47	1482	NSLNPLYAYWQKEVRLQ	Homo sapiens
2135	190749	G Protein-Coupled	LR48	467	RRAALRPPRPARGSRLRSD	Homo sapiens

2136	190749	Receptor GPR62	LR48	468	RPVRLALGRLSRRALPGPVR	Homo sapiens
2137	190749	G Protein-Coupled Receptor GPR62	LR48	510	DSRLSILPPLRRLPGGK	Homo sapiens
2138	190749	G Protein-Coupled Receptor GPR62	LR48	511	RPPEGPAVGPSEAEQTPE	Homo sapiens
2139	190749	G Protein-Coupled Receptor GPR62	LR48	2702	VVARRAALRPPRPA	Homo sapiens
2140	190749	G Protein-Coupled Receptor GPR62	LR48	2703	PSEAEQTPELAGGR	Homo sapiens
2141	190749	G Protein-Coupled Receptor GPR62	LR48	2704	GPSEAEQTPELAG	Homo sapiens
2142	190774	Histamine H4 Receptor	NP_067637.2	2235	PDNSTINLSLSTRVTLAFF	Homo sapiens
2143	190774	Histamine H4 Receptor	NP_067637.2	2237	VVDKNLRHRSSVFFLN	Homo sapiens
2144	190774	Histamine H4 Receptor	NP_067637.2	2240	LYPHTLFEWDFGKEIC	Homo sapiens
2145	190774	Histamine H4 Receptor	NP_067637.2	2242	TQHTGVLIKIVLMVAV	Homo sapiens
2146	190774	Histamine H4 Receptor	NP_067637.2	2243	VNGPMILVSESWKDEGSEC	Homo sapiens
2147	190774	Histamine H4 Receptor	NP_067637.2	2244	CEPGFFSEWYLAITSFL	Homo sapiens
2148	190774	Histamine H4 Receptor	NP_067637.2	2245	AYFNMINIYWSLWKRDHLSRC	Homo sapiens
2149	190774	Histamine H4 Receptor	NP_067637.2	2246	CGHSFRGRLSSRRSL	Homo sapiens
2150	190774	Histamine H4 Receptor	NP_067637.2	2247	IASKMGFSQSDSVALHQRE	Homo sapiens
2151	190774	Histamine H4 Receptor	NP_067637.2	2249	IVLSFYSSATGPKSVWYRIA	Homo sapiens
2152	190823	Formyl Peptide Receptor 1 (FPR1)	NP_002020.1	2085	IIRVTVPGKTGTAC	Homo sapiens
2153	190823	Formyl Peptide Receptor 1 (FPR1)	NP_002020.1	2086	SPWTNDPKERINVAVA	Homo sapiens
2154	190823	Formyl Peptide Receptor 1 (FPR1)	NP_002020.1	2087	RIRELLQGMVKEIGIAVD	Homo sapiens
2155	190823	Formyl Peptide Receptor 1 (FPR1)	NP_002020.1	2088	TQTSDTATNSTLPSAE	Homo sapiens
2156	190824	Formyl Peptide Receptor-like 2 (FPR2)	LR14	481	TEVPDSAQTSNTHITSAS	Homo sapiens
2157	190824	Formyl Peptide Receptor-like 2 (FPR2)	LR14	522	GDTAVERLNVFITMAKV	Homo sapiens
2158	190824	Formyl Peptide Receptor-like 2 (FPR2)	LR14	523	MSLAKRVMITGLWIFTI	Homo sapiens
2159	190824	Formyl Peptide Receptor-like 2 (FPR2)	LR14	525	LHFIFGFTVPMISITV	Homo sapiens

2160	190948	like 2 (FPRL2)	NP_038475.1	1658	DELLEAPGDLETLPLRQQHC	Homo sapiens
2161	190948	EMR2 Hormone Receptor	NP_038475.1	1659	CVASHLLDGLDVLRLGLSKN	Homo sapiens
2162	190948	EMR2 Hormone Receptor	NP_038475.1	1660	KSGDPGPSVVGIVSIPG	Homo sapiens
2163	190948	EMR2 Hormone Receptor	NP_038475.1	1661	SKGIRKLKTESEMHTLSS	Homo sapiens
2164	190948	EMR2 Hormone Receptor	NP_038475.1	1662	ELSLEVQKQVDRSVTLRQNG	Homo sapiens
2165	190948	EMR2 Hormone Receptor	NP_038475.1	1663	EPEKQMLLHETHQGLLDGGS	Homo sapiens
2166	190955	Leukotriene B4 Receptor BLT1	NP_000743.1	1492	KRMQKRSVTALMVNLALAD	Homo sapiens
2167	190955	Leukotriene B4 Receptor BLT1	NP_000743.1	1493	RPFVSQKLRTKAMARR	Homo sapiens
2168	190955	Leukotriene B4 Receptor BLT1	NP_000743.1	1494	ASYSDIGRRRLQARRFR	Homo sapiens
2169	190955	Leukotriene B4 Receptor BLT1	NP_000743.1	1495	LEGTGSEASSTRRGGS	Homo sapiens
2170	191039	Trace Amine Receptor 1 (TA1)	LR122	2039	RKALKMMLFGKIFQKDSRC	Homo sapiens
2171	191039	Trace Amine Receptor 1 (TA1)	LR122	2040	QIGLEMKNIGISQSKERKAV	Homo sapiens
2172	191039	Trace Amine Receptor 1 (TA1)	LR122	2041	RIVLAKEQARLISDANQK	Homo sapiens
2173	191039	Trace Amine Receptor 1 (TA1)	LR122	2042	ELNFKGAEIYYKHVHC	Homo sapiens
2174	191039	Trace Amine Receptor 1 (TA1)	LR122	2043	CVKNINWSNDVRASLYS	Homo sapiens
2175	191132	G Protein-Coupled Receptor 88 (GPR88)	NP_071332.1	1569	SAEPPADWDGAGGSYRLRG	Homo sapiens
2176	191132	G Protein-Coupled Receptor 88 (GPR88)	NP_071332.1	1571	GIVRRVRVSVKRVSVLN	Homo sapiens
2177	191132	G Protein-Coupled Receptor 88 (GPR88)	NP_071332.1	1572	RNEEFRRSVRSVLPGVGDA	Homo sapiens
2178	191132	G Protein-Coupled Receptor 88 (GPR88)	NP_071332.1	1573	CEEEESWAGRRIPVSLLYSG	Homo sapiens
2179	191132	G Protein-Coupled Receptor 88 (GPR88)	NP_071332.1	1651	CYLGIIVRRVRVSVKRVSV	Homo sapiens
2180	191168	P2Y12 Platelet ADP Receptor	NP_073625.1	1544	KELYRSYVTRTRGVGKVP	Homo sapiens
2181	191168	P2Y12 Platelet ADP Receptor	NP_073625.1	1545	ILTNRQPRDKNVKKCS	Homo sapiens



2182	191168	P2Y12 Platelet ADP Receptor	NP_073625.1	1546	CPNSATLSQDNRKKEQDGG	Homo sapiens
2183	191168	P2Y12 Platelet ADP Receptor	NP_073625.1	1570	TTRPFKTSNPKNLLGAK	Homo sapiens
2184	191193	Trace Amine Receptor 3 (TA3)	LR88	1969	ANEEGIEELVVA	Homo sapiens
2185	191193	Trace Amine Receptor 3 (TA3)	LR88	2316	RKIESTASQAQSS	Homo sapiens
2186	191193	Trace Amine Receptor 3 (TA3)	LR88	2571	LVDAVIDAYMINFI	Homo sapiens
2187	191193	Trace Amine Receptor 3 (TA3)	LR88	2573	RTDSSITNLFSEEVET	Homo sapiens
2188	191196	G Protein-Coupled Receptor GPR80	IP_13092	1864	NASDFPDYAAAFGNCTDE	Homo sapiens
2189	191196	G Protein-Coupled Receptor GPR80	IP_13092	1865	TLTSTNRTNRSACLD	Homo sapiens
2190	191196	G Protein-Coupled Receptor GPR80	IP_13092	1866	TLTHGLQIDSLKQKARR	Homo sapiens
2191	191196	G Protein-Coupled Receptor GPR80	IP_13092	1867	RLSISCSIENQIHEA	Homo sapiens
2192	191196	G Protein-Coupled Receptor GPR80	IP_13092	1868	QQAVCSTVRCKVSGNLE	Homo sapiens
2193	191218	MrgX2 G Protein-Coupled Receptor	AAK91805.1	2749	QDIAEVDHSEGGCF	Homo sapiens
2194	191218	MrgX2 G Protein-Coupled Receptor	AAK91805.1	2750	RKQWRLLQQPILKLA	Homo sapiens
2195	191218	MrgX2 G Protein-Coupled Receptor	AAK91805.1	2751	CSISINFPSTFTVMTC	Homo sapiens
2196	191218	MrgX2 G Protein-Coupled Receptor	AAK91805.1	2752	QWFLILWIWKDSDV	Homo sapiens
2197	191222	G Protein-Coupled Receptor Ls191222	ENSP00000199719	2575	AFLSDNTIEVRINRTLKK	Homo sapiens
2198	191222	G Protein-Coupled Receptor Ls191222	ENSP00000199719	2576	QETKNEFRNLQIQSKC	Homo sapiens
2199	191222	G Protein-Coupled Receptor Ls191222	ENSP00000199719	2577	CNNKTHWAPVRSTM	Homo sapiens
2200	191222	G Protein-Coupled Receptor Ls191222	ENSP00000199719	2581	TKMAEYDLQNDVFIIPD	Homo sapiens
2201	193511	EGF-Like Module-Containing	AAK15076.1	1665	CQDTSSKTEGRKELQKIV	Homo sapiens

2202	193511	Mucin-Like Receptor EMR3	AAK15076.1	1666	RDVESKVLKALDPEQK	Homo sapiens
2203	193511	EGF-Like Module-Containing Mucin-Like Receptor EMR3	AAK15076.1	1667	KIQNDSVAIETQAIDNC	Homo sapiens
2204	193511	EGF-Like Module-Containing Mucin-Like Receptor EMR3	AAK15076.1	1668	CSEERKTFNLNVQMNSMDIR	Homo sapiens
2205	193511	EGF-Like Module-Containing Mucin-Like Receptor EMR3	AAK15076.1	1669	EEMDKKDDQVYLNQVWSAA	Homo sapiens
2206	193511	EGF-Like Module-Containing Mucin-Like Receptor EMR3	AAK15076.1	1670	SKSVTLTFQHVKMTIPSTK	Homo sapiens
2207	193516	Mucin-Like Receptor EMR3	CAC21687.1	2142	CLLLPTAVIVFSYVVKIAK	Homo sapiens
2208	193516	G Protein-Coupled Receptor dJ402H5.1	CAC21687.1	2144	RPDSIPILQSLVVPITLLA	Homo sapiens
2209	193516	G Protein-Coupled Receptor dJ402H5.1	CAC21687.1	2145	CQTGGLKATKKKSLG	Homo sapiens
2210	193516	G Protein-Coupled Receptor dJ402H5.1	CAC21687.1	2146	RLHTVITVRKSSAVLE	Homo sapiens
2211	193516	G Protein-Coupled Receptor dJ402H5.1	CAC21687.1	2620	PTAVIVFSYVVKIAKV	Homo sapiens
2212	193524	Cadherin EGF LAG Seven-Pass G-Type Receptor 3 (CELSR3)	NP_001398.1	1947	KLAQLRLREVGTGHTDHYFSQD	Homo sapiens
2213	193524	Cadherin EGF LAG Seven-Pass G-Type Receptor 3 (CELSR3)	NP_001398.1	1948	CALQTWGSERRRLGLDTSKD	Homo sapiens
2214	193524	Cadherin EGF LAG Seven-Pass G-Type Receptor 3 (CELSR3)	NP_001398.1	2734	RGRRQSARNSRGPPEQPNE	Homo sapiens
2215	193524	Cadherin EGF LAG Seven-Pass G-Type Receptor 3 (CELSR3)	NP_001398.1	2735	RNSRGPPEQPNEELG	Homo sapiens
2216	193524	Cadherin EGF LAG Seven-Pass G-Type Receptor 3 (CELSR3)	NP_001398.1	2736	AQVREDVRPHITVLR	Homo sapiens
2217	193524	Cadherin EGF LAG Seven-Pass G-Type Receptor 3 (CELSR3)	NP_001398.1	2742	QLDQVPSRHPSPRE	Homo sapiens

2218	193524	Cadherin EGF LAG Seven-Pass G-Type Receptor 3 (CELSR3)	NP_001398.1	2744	LDLSRSSNSREQLDQV	Homo sapiens
2219	193914	Neuropeptide FF 1 Receptor	NP_071429.1	1903	REEHHFMVDARNRSPLYSC	Homo sapiens
2220	193914	Neuropeptide FF 1 Receptor	NP_071429.1	1904	PGPAPGGEEAADPRASRR	Homo sapiens
2221	193914	Neuropeptide FF 1 Receptor	NP_071429.1	1905	CPRPSGSHKEAYSERPGGLL	Homo sapiens
2222	193914	Neuropeptide FF 1 Receptor	NP_071429.1	1906	PSSGAPRPGRLPLNRGVA	Homo sapiens
2223	194319	G Protein-Coupled Receptor FLJ22684	NP_079324.1	2018	FLGKNDDIKTKKELVN	Homo sapiens
2224	194319	G Protein-Coupled Receptor FLJ22684	NP_079324.1	2019	QVTYRDSKEKRDLRNFLK	Homo sapiens
2225	194319	G Protein-Coupled Receptor FLJ22684	NP_079324.1	2020	CERTKIWGTFKINERFTND	Homo sapiens
2226	194319	G Protein-Coupled Receptor FLJ22684	NP_079324.1	2021	SKYANGIEIQLKKAYER	Homo sapiens
2227	194431	Olfactory Receptor, Family 51, Subfamily E, Member 2	NP_110401.1	2022	CIWVFIVRTERSLHAP	Homo sapiens
2228	194431	Olfactory Receptor, Family 51, Subfamily E, Member 2	NP_110401.1	2023	KILALFWDFSREISFEAC	Homo sapiens
2229	194431	Olfactory Receptor, Family 51, Subfamily E, Member 2	NP_110401.1	2024	CVHQDVMKLAYADTLP	Homo sapiens
2230	194431	Olfactory Receptor, Family 51, Subfamily E, Member 2	NP_110401.1	2027	RFGNSLHPIVRVWVMD	Homo sapiens
2231	194431	Olfactory Receptor, Family 51, Subfamily E, Member 2	NP_110401.1	2028	KTKQIRTRVLAMFKISC	Homo sapiens
2232	194743	FLJ14454	LR77	1855	KTDENEQDQSASVDMVFSP	Homo sapiens
2233	194743	FLJ14454	LR77	1856	KKDYQYPKSLDILSNVGC	Homo sapiens
2234	194743	FLJ14454	LR77	1857	KNLQTSDDGINNIDFDNN	Homo sapiens
2235	194743	FLJ14454	LR77	1858	SQNGNNPQWELDYRQEKIC	Homo sapiens
2236	194743	FLJ14454	LR77	1859	RPRLRVKMYNFLRSLPTLHE	Homo sapiens
2237	194745	G Protein-Coupled Receptor SLT/MCH2	AAK32193.1	1845	CNPSPVKGRVMKLTGM	Homo sapiens
2238	194745	G Protein-Coupled Receptor SLT/MCH2	AAK32193.1	1846	RLTRWRTRYKTIRINLG	Homo sapiens
2239	194745	G Protein-Coupled Receptor SLT/MCH2	AAK32193.1	1847	KDGVESCAFDLTSPDDVL	Homo sapiens
2240	194745	G Protein-Coupled Receptor SLT/MCH2	AAK32193.1	1848	LSGNFQKRLPQIQRRATE	Homo sapiens

2241	194745	G Protein-Coupled Receptor SLT/MCH2	AAK32193.1	1849	TIIRSRKKTVPDIYC	Homo sapiens
2242	194745	G Protein-Coupled Receptor SLT/MCH2	AAK32193.1	1907	RRATEKEINNMGNTLKS HF	Homo sapiens
2243	194756	Chemokine Receptor FKS80/GPR81	AAK29071.1	2089	CRIEGDTISQVMPPLIVA	Homo sapiens
2244	194756	Chemokine Receptor FKS80/GPR81	AAK29071.1	2090	RRHWAFGDIPCRVGLFTL	Homo sapiens
2245	194756	Chemokine Receptor FKS80/GPR81	AAK29071.1	2091	CESFIMESANGWHDIM	Homo sapiens
2246	194756	Chemokine Receptor FKS80/GPR81	AAK29071.1	2092	CSFKIVWSLRRRQQLARQAR	Homo sapiens
2247	194756	Chemokine Receptor FKS80/GPR81	AAK29071.1	2093	RRRQQLARQARMKKATR	Homo sapiens
2248	194756	Chemokine Receptor FKS80/GPR81	AAK29071.1	2094	TVPSSACDPSVHGALH	Homo sapiens
2249	194756	Chemokine Receptor FKS80/GPR81	AAK29071.1	2095	CSLKPQPGHSGTKQRPEEM	Homo sapiens
2250	194756	Chemokine Receptor FKS80/GPR81	AAK29071.1	2096	CISVANSFQSQSDGQWD	Homo sapiens
2251	194757	G Protein-Coupled Receptor Ls194757	CAB82385.1	2034	RTRKQHSEATNSSNRV FVC	Homo sapiens
2252	194757	G Protein-Coupled Receptor Ls194757	CAB82385.1	2035	RVISQISADNYKIHGDPSA	Homo sapiens
2253	194757	G Protein-Coupled Receptor Ls194757	CAB82385.1	2036	TSSARTSNAKPFHSD	Homo sapiens
2254	194757	G Protein-Coupled Receptor Ls194757	CAB82385.1	2037	NGTRPGMASTKLSPWD	Homo sapiens
2255	194858	G Protein-Coupled Receptor Ls194858	LR84	1933	LGIAWDRRLRSP PAGC	Homo sapiens
2256	194858	G Protein-Coupled Receptor Ls194858	LR84	1934	GERYMAVLRPLQPPGS	Homo sapiens
2257	194858	G Protein-Coupled Receptor Ls194858	LR84	1935	CRDEPSALARALTWRQAR	Homo sapiens
2258	194858	G Protein-Coupled Receptor Ls194858	LR84	1936	AAQRCLQGLWGRASRD	Homo sapiens
2259	194858	G Protein-Coupled Receptor Ls194858	LR84	1937	RDSPGPSIAYHPSSQSSVD	Homo sapiens
2260	194878	MrgX3 G Protein-Coupled	AAK91806.1	2748	ALFSRIHLDWKVLF	Homo sapiens

2261	194903	Receptor G Protein-Coupled Receptor GPCR83	ENSP00000198236	1991	CIAFKDIMPFSQVVGDER	Homo sapiens
2262	194903	G Protein-Coupled Receptor GPCR83	ENSP00000198236	1992	KAFEEAYARADKKAPRPC	Homo sapiens
2263	194903	G Protein-Coupled Receptor GPCR83	ENSP00000198236	1993	ETKIQWHGKDNQVPSVC	Homo sapiens
2264	194903	G Protein-Coupled Receptor GPCR83	ENSP00000198236	1994	CSYLGKDLPENVNEAK	Homo sapiens
2265	194904	WO0034334-hFB41A	LR114	2011	SDYDMPLEDEDVTNS	Homo sapiens
2266	194904	WO0034334-hFB41A	LR114	2014	NPHGAHATSPFNFVS	Homo sapiens
2267	194905	G Protein-Coupled Receptor MGC7035	LR112	1986	ERALPRTYMASVYNTRHVC	Homo sapiens
2268	194905	G Protein-Coupled Receptor MGC7035	LR112	1987	CAKMQNAEAAADATLVF	Homo sapiens
2269	194905	G Protein-Coupled Receptor MGC7035	LR112	1988	DRDTGRLEPSAHRLLVATVC	Homo sapiens
2270	194905	G Protein-Coupled Receptor MGC7035	LR112	1989	RYMINGSFPSKLQRLMKKLP	Homo sapiens
2271	194907	G Protein-Coupled Receptor 14273	LR116	2003	CARAAAGDAPLRSLQANRTR	Homo sapiens
2272	194907	G Protein-Coupled Receptor 14273	LR116	2004	VISYSKILQITKASRKRL	Homo sapiens
2273	194907	G Protein-Coupled Receptor 14273	LR116	2005	TVSLAYSRSHQIRVVSQQD	Homo sapiens
2274	194907	G Protein-Coupled Receptor 14273	LR116	2006	CTWFPEKGAILDTSVKRND	Homo sapiens
2275	194908	G Protein-coupled Receptor Gpcrb4	LR117	2007	TYGRDNGQLLGERVARRDIC	Homo sapiens
2276	194908	G Protein-coupled Receptor Gpcrb4	LR117	2008	QETLPTLQPNQNMVTSEERQR	Homo sapiens
2277	194908	G Protein-coupled Receptor Gpcrb4	LR117	2009	RTSQSYTCNQECDNCLNAT	Homo sapiens
2278	194908	G Protein-coupled Receptor Gpcrb4	LR117	2010	RPQSHPRTPDDPKITVSC	Homo sapiens
2279	194957	Trace Amine Receptor 4 (TA4)	AAK71243.1	2312	VARRQAKKIENTGSKT	Homo sapiens
2280	194957	Trace Amine Receptor 4 (TA4)	AAK71243.1	2313	KVIVTGQVLKNSSA	Homo sapiens

2281	194957	Trace Amine Receptor 4 (TA4)	AAK71243.1	2318	MSSNSSLLVAVQLC	Homo sapiens
2282	194958	Trace Amine Receptor 5 (TA5)	AAK71244.1	2307	IAKQQAIIETSSKV	Homo sapiens
2283	194958	Trace Amine Receptor 5 (TA5)	AAK71244.1	2314	MTSNFSQPWWQLC	Homo sapiens
2284	194958	Trace Amine Receptor 5 (TA5)	AAK71244.1	2319	KULSGDVLKAS	Homo sapiens
2285	194958	Trace Amine Receptor 5 (TA5)	AAK71244.1	2570	SGDVLKASSSTISLFLE	Homo sapiens
2286	194989	MrgX4 G Protein-Coupled Receptor	AAK91807.1	2727	QDKPEVDKGGEGQLPEESL	Homo sapiens
2287	194989	MrgX4 G Protein-Coupled Receptor	AAK91807.1	2728	LINISHLIRKILVS	Homo sapiens
2288	194989	MrgX4 G Protein-Coupled Receptor	AAK91807.1	2729	MDPTVPVFGTKL	Homo sapiens
2289	195015	G Protein-Coupled Receptor GPR82	AAL26482	2706	RYATLMQKDSSQETT	Homo sapiens
2290	195015	G Protein-Coupled Receptor GPR82	AAL26482	2707	KIFYGHLLKKFRQPNF	Homo sapiens
2291	195015	G Protein-Coupled Receptor GPR82	AAL26482	2708	YSVIEATEGEESLC	Homo sapiens
2292	195015	G Protein-Coupled Receptor GPR82	AAL26482	2715	CTSIMEKDLTYSSVKR	Homo sapiens

SEQ ID NO:	LS_ID	Gene	Antibody Company Name
1	127	5-HT1A Receptor	Chemicon
1	127	5-HT1A Receptor	Research Diagnostics
1	127	5-HT1A Receptor	Santa Cruz
3	128	5-HT1B Receptor	Chemicon
3	128	5-HT1B Receptor	Research Diagnostics
3	128	5-HT1B Receptor	Santa Cruz
5	129	5-HT1D Receptor	Research Diagnostics
5	129	5-HT1D Receptor	Santa Cruz
11	132	5-HT2A Receptor	Calbiochem
11	132	5-HT2A Receptor	Research Diagnostics
13	133	5-HT2B Receptor	Research Diagnostics
15	134	5-HT2C Receptor	Research Diagnostics
15	134	5-HT2C Receptor	Santa Cruz
21	139	5-HT7 Receptor	Calbiochem
23	272	Adenosine A1 Receptor	Alpha Diagnostic Int.
23	272	Adenosine A1 Receptor	Calbiochem
23	272	Adenosine A1 Receptor	Santa Cruz
25	273	Adenosine A2a Receptor	Alpha Diagnostic Int.
25	273	Adenosine A2a Receptor	Calbiochem
25	273	Adenosine A2a Receptor	Chemicon
25	273	Adenosine A2a Receptor	Santa Cruz
27	274	Adenosine A2b Receptor	Alpha Diagnostic Int.
27	274	Adenosine A2b Receptor	Chemicon
27	274	Adenosine A2b Receptor	Santa Cruz
29	275	Adenosine A3 Receptor	Alpha Diagnostic Int.
29	275	Adenosine A3 Receptor	Santa Cruz
31	309	Melanocortin 2 Receptor (adrenocorticotrophic hormone) (MC2R)	Alpha Diagnostic Int.
31	309	Melanocortin 2 Receptor (adrenocorticotrophic hormone) (MC2R)	Chemicon
31	309	Melanocortin 2 Receptor (adrenocorticotrophic hormone) (MC2R)	Research Diagnostics
31	309	Melanocortin 2 Receptor (adrenocorticotrophic hormone) (MC2R)	Santa Cruz
35	377	Alpha 1b-adrenoceptor	Research Diagnostics
35	377	Alpha 1b-adrenoceptor	Santa Cruz
37	379	Alpha 1c-adrenoceptor	Research Diagnostics
37	379	Alpha 1c-adrenoceptor	Santa Cruz
39	387	Alpha 2a-adrenoceptor	Calbiochem
39	387	Alpha 2a-adrenoceptor	Santa Cruz
41	388	Alpha 2b-adrenoceptor	Research Diagnostics
41	388	Alpha 2b-adrenoceptor	Santa Cruz
43	389	Alpha 2c-adrenoceptor	Research Diagnostics
43	389	Alpha 2c-adrenoceptor	Santa Cruz
45	599	Bradykinin B1 Receptor	Research Diagnostics
49	635	Beta-1 adrenoceptor	Calbiochem
49	635	Beta-1 adrenoceptor	Research Diagnostics

49	635	Beta-1 adrenoceptor	Santa Cruz
51	640	Beta-2 adrenoceptor	Research Diagnostics
51	640	Beta-2 adrenoceptor	Santa Cruz
53	643	Beta-3 adrenoceptor	Alpha Diagnostic Int.
53	643	Beta-3 adrenoceptor	Chemicon
53	643	Beta-3 adrenoceptor	Research Diagnostics
53	643	Beta-3 adrenoceptor	Santa Cruz
57	692	Bombesin Receptor Subtype-3	Alpha Diagnostic Int.
57	692	Bombesin Receptor Subtype-3	Chemicon
59	729	CXC Chemokine Receptor 5	Research Diagnostics
59	729	CXC Chemokine Receptor 5	Santa Cruz
61	735	C-C Chemokine Receptor 1	Calbiochem
61	735	C-C Chemokine Receptor 1	Capralogics
61	735	C-C Chemokine Receptor 1	Chemicon
61	735	C-C Chemokine Receptor 1	Research Diagnostics
61	735	C-C Chemokine Receptor 1	Santa Cruz
63	737	C-C Chemokine Receptor 3	Research Diagnostics
63	737	C-C Chemokine Receptor 3	Santa Cruz
65	738	C-C Chemokine Receptor 4	Capralogics
65	738	C-C Chemokine Receptor 4	Research Diagnostics
65	738	C-C Chemokine Receptor 4	Santa Cruz
67	741	C-C Chemokine Receptor 7	Research Diagnostics
67	741	C-C Chemokine Receptor 7	Santa Cruz
69	742	C-C Chemokine Receptor 8	Chemicon
70	742	C-C Chemokine Receptor 8	Chemicon
71	742	C-C Chemokine Receptor 8	Chemicon
73	752	CXC Chemokine Receptor 3	Research Diagnostics
73	752	CXC Chemokine Receptor 3	Santa Cruz
73	752	CXC Chemokine Receptor 3	Zymed
75	753	CXC Chemokine Receptor 4	Biosource
75	753	CXC Chemokine Receptor 4	Calbiochem
75	753	CXC Chemokine Receptor 4	Capralogics
75	753	CXC Chemokine Receptor 4	Chemicon
75	753	CXC Chemokine Receptor 4	eBioscience
75	753	CXC Chemokine Receptor 4	Research Diagnostics
75	753	CXC Chemokine Receptor 4	Santa Cruz
77	755	Complement Component 3a Receptor 1	Chemokine.com
79	758	Complement Component 5a Receptor 1	Santa Cruz
83	832	Cannabinoid Receptor 1	Alpha Diagnostic Int.
83	832	Cannabinoid Receptor 1	Biosource
83	832	Cannabinoid Receptor 1	Calbiochem
83	832	Cannabinoid Receptor 1	Cayman
83	832	Cannabinoid Receptor 1	Chemicon
83	832	Cannabinoid Receptor 1	Santa Cruz
85	833	Cannabinoid Receptor 2	Alpha Diagnostic Int.
85	833	Cannabinoid Receptor 2	Calbiochem
85	833	Cannabinoid Receptor 2	Cayman
85	833	Cannabinoid Receptor 2	Chemicon
85	833	Cannabinoid Receptor 2	Santa Cruz
97	1240	Dopamine Receptor D1	Alpha Diagnostic Int.
97	1240	Dopamine Receptor D1	Biogenesis



97	1240	Dopamine Receptor D1	Calbiochem
97	1240	Dopamine Receptor D1	Chemicon
97	1240	Dopamine Receptor D1	FabGennix through Abcam
97	1240	Dopamine Receptor D1	Research Diagnostics
97	1240	Dopamine Receptor D1	Santa Cruz
99	1241	Dopamine Receptor D5	Alpha Diagnostic Int.
99	1241	Dopamine Receptor D5	Biogenesis
99	1241	Dopamine Receptor D5	Calbiochem
99	1241	Dopamine Receptor D5	Chemicon
99	1241	Dopamine Receptor D5	Santa Cruz
101	1242	Dopamine Receptor D2	Alpha Diagnostic Int.
101	1242	Dopamine Receptor D2	Biogenesis
101	1242	Dopamine Receptor D2	Calbiochem
101	1242	Dopamine Receptor D2	Chemicon
101	1242	Dopamine Receptor D2	DPC Biermann/Acris
101	1242	Dopamine Receptor D2	FabGennix through Abcam
101	1242	Dopamine Receptor D2	Research Diagnostics
101	1242	Dopamine Receptor D2	Santa Cruz
103	1243	Dopamine Receptor D3	Alpha Diagnostic Int.
103	1243	Dopamine Receptor D3	Biogenesis
103	1243	Dopamine Receptor D3	Calbiochem
103	1243	Dopamine Receptor D3	Chemicon
103	1243	Dopamine Receptor D3	Research Diagnostics
103	1243	Dopamine Receptor D3	Santa Cruz
103	1243	Dopamine Receptor D3	Zymed
105	1244	Dopamine Receptor D4	Alpha Diagnostic Int.
105	1244	Dopamine Receptor D4	Biogenesis
105	1244	Dopamine Receptor D4	Calbiochem
105	1244	Dopamine Receptor D4	Chemicon
105	1244	Dopamine Receptor D4	DPC Biermann/Acris
105	1244	Dopamine Receptor D4	Santa Cruz
107	1267	Opioid Receptor, delta 1 (OPRD1)	Biosource
107	1267	Opioid Receptor, delta 1 (OPRD1)	Calbiochem
107	1267	Opioid Receptor, delta 1 (OPRD1)	DPC Biermann/Acris
107	1267	Opioid Receptor, delta 1 (OPRD1)	Santa Cruz
113	1486	Endothelin B Receptor	Biogenesis
113	1486	Endothelin B Receptor	Capralogics
113	1486	Endothelin B Receptor	DPC Biermann/Acris
113	1486	Endothelin B Receptor	Fitzgerald Industries Int.
113	1486	Endothelin B Receptor	Research Diagnostics
115	1488	Endothelin A Receptor	Biogenesis
115	1488	Endothelin A Receptor	Capralogics
115	1488	Endothelin A Receptor	DPC Biermann/Acris
115	1488	Endothelin A Receptor	Fitzgerald Industries Int.
115	1488	Endothelin A Receptor	Research Diagnostics
117	1598	Calcium-Sensing Receptor (CASR)	Chemicon
117	1598	Calcium-Sensing Receptor (CASR)	DPC Biermann/Acris

121	1681	Follicle Stimulating Hormone Receptor	Biogenesis
121	1681	Follicle Stimulating Hormone Receptor	DPC Biermann/Acris
121	1681	Follicle Stimulating Hormone Receptor	Santa Cruz
125	1762	Galanin Receptor GalR1	Alpha Diagnostic Int.
135	1925	Gonadotropin-Releasing Hormone Receptor	Biocarta
135	1925	Gonadotropin-Releasing Hormone Receptor	Lab Vision Corporation/NeoMarkers
135	1925	Gonadotropin-Releasing Hormone Receptor	Research Diagnostics
135	1925	Gonadotropin-Releasing Hormone Receptor	Santa Cruz
139	1951	Growth Hormone Secretagogue Receptor	Santa Cruz
143	2120	Histamine H1 Receptor	Alpha Diagnostic Int.
143	2120	Histamine H1 Receptor	Chemicon
145	2121	Histamine H2 Receptor	Alpha Diagnostic Int.
145	2121	Histamine H2 Receptor	Chemicon
147	2783	Opioid Receptor, kappa 1 (OPRK1)	Biosource
147	2783	Opioid Receptor, kappa 1 (OPRK1)	Calbiochem
147	2783	Opioid Receptor, kappa 1 (OPRK1)	DPC Biermann/Acris
147	2783	Opioid Receptor, kappa 1 (OPRK1)	Santa Cruz
151	2976	Lysophosphatidic Acid Receptor Edg2	Exalpha Biologicals
155	3057	Melanocortin 3 Receptor (MC3R)	Alpha Diagnostic Int.
155	3057	Melanocortin 3 Receptor (MC3R)	Chemicon
155	3057	Melanocortin 3 Receptor (MC3R)	Research Diagnostics
155	3057	Melanocortin 3 Receptor (MC3R)	Santa Cruz
157	3058	Melanocortin 4 Receptor (MC4R)	Alpha Diagnostic Int.
157	3058	Melanocortin 4 Receptor (MC4R)	Chemicon
157	3058	Melanocortin 4 Receptor (MC4R)	Research Diagnostics
157	3058	Melanocortin 4 Receptor (MC4R)	Santa Cruz
159	3059	Melanocortin 5 Receptor (MC5R)	Alpha Diagnostic Int.
159	3059	Melanocortin 5 Receptor (MC5R)	Chemicon
159	3059	Melanocortin 5 Receptor (MC5R)	Research Diagnostics

159	3059	Melanocortin 5 Receptor (MC5R)	Santa Cruz
161	3061	Melanocortin 1 Receptor (MC1R)	Alpha Diagnostic Int.
161	3061	Melanocortin 1 Receptor (MC1R)	Chemicon
161	3061	Melanocortin 1 Receptor (MC1R)	Research Diagnostics
161	3061	Melanocortin 1 Receptor (MC1R)	Santa Cruz
169	3093	Metabotropic Glutamate Receptor 1	Chemicon
171	3094	Metabotropic Glutamate Receptor 2	Chemicon
173	3095	Metabotropic Glutamate Receptor 3	Chemicon
175	3096	Metabotropic Glutamate Receptor 4	Zymed
177	3097	Metabotropic Glutamate Receptor 5	Chemicon
183	3100	Metabotropic Glutamate Receptor 8	Chemicon
185	3212	Opioid mu-type Receptor	Biosource
185	3212	Opioid mu-type Receptor	Calbiochem
185	3212	Opioid mu-type Receptor	Chemicon
185	3212	Opioid mu-type Receptor	DPC Biermann/Acris
185	3212	Opioid mu-type Receptor	Santa Cruz
187	3223	Muscarinic acetylcholine Receptor M1	Biogenesis
187	3223	Muscarinic acetylcholine Receptor M1	Calbiochem
187	3223	Muscarinic acetylcholine Receptor M1	Chemicon
187	3223	Muscarinic acetylcholine Receptor M1	Santa Cruz
189	3224	Muscarinic acetylcholine Receptor M2	Biogenesis
189	3224	Muscarinic acetylcholine Receptor M2	Calbiochem
189	3224	Muscarinic acetylcholine Receptor M2	Chemicon
189	3224	Muscarinic acetylcholine Receptor M2	Santa Cruz
191	3226	Muscarinic acetylcholine Receptor M4	Biogenesis
192	3226	Muscarinic acetylcholine Receptor M4	Biogenesis
191	3226	Muscarinic acetylcholine Receptor M4	Chemicon
192	3226	Muscarinic acetylcholine Receptor M4	Chemicon
191	3226	Muscarinic acetylcholine Receptor M4	Santa Cruz

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192	3226	Muscarinic acetylcholine Receptor M4	Santa Cruz
194	3227	Muscarinic Acetylcholine Receptor M5	Biogenesis
194	3227	Muscarinic Acetylcholine Receptor M5	Santa Cruz
200	3404	Neuropeptide Y Receptor Type 2	Biogenesis
202	3405	Neuropeptide Y Receptor Type 4	Biogenesis
206	3408	Neurotensin Receptor Type 1	Santa Cruz
208	3452	Opiate Receptor-Like 1 (OPRL1)	Santa Cruz
214	3582	Oxytocin Receptor	Santa Cruz
216	3589	Purinergic Receptor P2Y, G-protein coupled, 2 (P2RY2)	Chemicon
216	3589	Purinergic Receptor P2Y, G-protein coupled, 2 (P2RY2)	Zymed
218	3595	Purinergic Receptor P2Y1	Chemicon
218	3595	Purinergic Receptor P2Y1	Zymed
228	3640	Parathyroid Hormone Receptor 1 (PTHr1)	Biocarta
228	3640	Parathyroid Hormone Receptor 1 (PTHr1)	Lab Vision Corporation/NeoMarkers
228	3640	Parathyroid Hormone Receptor 1 (PTHr1)	Santa Cruz
236	3846	Sphingolipid Receptor Edg1	Exalpa Biologicals
238	3847	Sphingolipid Receptor Edg3	Exalpa Biologicals
240	3848	C-C Chemokine Receptor 9	Research Diagnostics
248	3852	CX3C Chemokine Fractalkine Receptor 1	Chemicon
248	3852	CX3C Chemokine Fractalkine Receptor 1	Chemokine.com
248	3852	CX3C Chemokine Fractalkine Receptor 1	eBioscience
250	3853	G Protein-Coupled Receptor GPR15	Santa Cruz
264	3860	G Protein-Coupled Receptor SLC/MCH1	Alpha Diagnostic Int.
264	3860	G Protein-Coupled Receptor SLC/MCH1	Santa Cruz
295	3927	Prostaglandin E Receptor EP4	Cayman
299	4051	Proteinase-Activated Receptor 2	Research Diagnostics
299	4051	Proteinase-Activated Receptor 2	Santa Cruz
301	4052	Proteinase-Activated Receptor 3	Research Diagnostics
301	4052	Proteinase-Activated Receptor 3	Santa Cruz
305	4254	Rhodopsin	Biocarta
305	4254	Rhodopsin	DPC Biermann/Acris
311	4480	Somatostatin Receptor Type 1	Santa Cruz

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313	4481	Somatostatin Receptor Type 2	Biogenesis
313	4481	Somatostatin Receptor Type 2	Santa Cruz
315	4482	Somatostatin Receptor Type 3	Santa Cruz
317	4483	Somatostatin Receptor Type 4	Santa Cruz
319	4484	Somatostatin Receptor Type 5	Santa Cruz
321	4552	Tachykinin Receptor 1	Santa Cruz
323	4687	Thrombin Receptor	DPC Biermann/Acris
323	4687	Thrombin Receptor	Research Diagnostics
323	4687	Thrombin Receptor	Santa Cruz
325	4734	Thyrotropin Releasing Hormone Receptor	Santa Cruz
327	4944	Angiotensin II Type 1 Receptor	Alpha Diagnostic Int.
327	4944	Angiotensin II Type 1 Receptor	Biocarta
327	4944	Angiotensin II Type 1 Receptor	Biogenesis
327	4944	Angiotensin II Type 1 Receptor	Capralogics
327	4944	Angiotensin II Type 1 Receptor	Chemicon
327	4944	Angiotensin II Type 1 Receptor	DPC Biermann/Acris
327	4944	Angiotensin II Type 1 Receptor	Fitzgerald Industries Int.
327	4944	Angiotensin II Type 1 Receptor	Fitzgerald Industries Int.
327	4944	Angiotensin II Type 1 Receptor	Lab Vision Corporation/NeoMarkers
327	4944	Angiotensin II Type 1 Receptor	Santa Cruz
329	4946	Angiotensin II Type 2 Receptor	Alpha Diagnostic Int.
329	4946	Angiotensin II Type 2 Receptor	DPC Biermann/Acris
329	4946	Angiotensin II Type 2 Receptor	Santa Cruz
331	5072	Pyrimidinergic Receptor P2Y4	Chemicon
333	5117	Vasopressin V1A Receptor	Chemicon
335	5118	Vasopressin V1B Receptor	Alpha Diagnostic Int.
335	5118	Vasopressin V1B Receptor	Chemicon
337	5119	Vasopressin V2 Receptor	Alpha Diagnostic Int.
337	5119	Vasopressin V2 Receptor	Chemicon
337	5119	Vasopressin V2 Receptor	Research Diagnostics
347	6031	SIV/HIV Receptor BONZO	Santa Cruz
349	6204	Lysophosphatidic Acid Receptor Edg4	Exalpha Biologicals
351	6213	C-C Chemokine Receptor 5	Calbiochem
351	6213	C-C Chemokine Receptor 5	Capralogics
351	6213	C-C Chemokine Receptor 5	Chemicon
351	6213	C-C Chemokine Receptor 5	Research Diagnostics
351	6213	C-C Chemokine Receptor 5	Santa Cruz
361	6853	Purinergic Receptor P2Y11	Zymed

365	7221	Galanin Receptor GalR2	Alpha Diagnostic Int.
367	7246	Orexin Receptor 1	Alpha Diagnostic Int.
369	7247	Orexin Receptor 2	Alpha Diagnostic Int.
371	8436	Platelet-Activating Factor Receptor	Cayman
371	8436	Platelet-Activating Factor Receptor	Santa Cruz
377	9421	Neuropeptide Y Receptor Type 1	Biogenesis
377	9421	Neuropeptide Y Receptor Type 1	DPC Biermann/Acris
379	9834	Corticotropin releasing factor Receptor 1	Research Diagnostics
379	9834	Corticotropin releasing factor Receptor 1	Santa Cruz
385	14198	Interleukin-8 Receptor B	Biosource
385	14198	Interleukin-8 Receptor B	R&D Systems
385	14198	Interleukin-8 Receptor B	Research Diagnostics
385	14198	Interleukin-8 Receptor B	Santa Cruz
387	14641	Calcitonin Receptor	Santa Cruz
389	16041	C-C Chemokine Receptor 6	Research Diagnostics
389	16041	C-C Chemokine Receptor 6	Santa Cruz
391	16599	Smoothened	Research Diagnostics
391	16599	Smoothened	Santa Cruz
397	17535	Gaba(b) Receptor 1	Alpha Diagnostic Int.
397	17535	Gaba(b) Receptor 1	Calbiochem
397	17535	Gaba(b) Receptor 1	Chemicon
397	17535	Gaba(b) Receptor 1	Santa Cruz
423	37498	Xenotropic and Polytopic Retrovirus Receptor (XPR1)	Santa Cruz
435	54053	Gaba(b) Receptor 2	Alpha Diagnostic Int.
435	54053	Gaba(b) Receptor 2	Chemicon
439	56923	Muscarinic acetylcholine Receptor M3	Biogenesis
439	56923	Muscarinic acetylcholine Receptor M3	Santa Cruz
457	152201	Thyrotropin Receptor	DPC Biermann/Acris
457	152201	Thyrotropin Receptor	Santa Cruz
459	152245	C-C Chemokine Receptor 2	Research Diagnostics
459	152245	C-C Chemokine Receptor 2	Santa Cruz
461	152299	Interleukin-8 Receptor A	Biosource
462	152299	Interleukin-8 Receptor A	Biosource
461	152299	Interleukin-8 Receptor A	R&D Systems
462	152299	Interleukin-8 Receptor A	R&D Systems
461	152299	Interleukin-8 Receptor A	Research Diagnostics
462	152299	Interleukin-8 Receptor A	Research Diagnostics
461	152299	Interleukin-8 Receptor A	Santa Cruz
462	152299	Interleukin-8 Receptor A	Santa Cruz
468	159973	Vasoactive Intestinal Polypeptide Receptor 1	Exalpha Biologicals
470	160040	Vasoactive Intestinal Polypeptide Receptor 2	Exalpha Biologicals
472	160055	Motilin Receptor (GPR38)	Santa Cruz

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503	160228	T-Cell Death-Associated Gene 8 (GPR65)	Santa Cruz
507	160312	Sphingolipid Receptor Edg5	Exalpha Biologicals
515	160329	Proteinase-Activated Receptor 4	Santa Cruz
535	161214	Galanin Receptor GalR3	Alpha Diagnostic Int.
537	161221	Urotensin-II Receptor (GPR14)	Santa Cruz
546	177168	Cysteinyl Leukotriene CYSLT1 Receptor	Cayman
548	177191	Histamine H3 Receptor	Alpha Diagnostic Int.
548	177191	Histamine H3 Receptor	Chemicon
552	180956	Lysophosphatidic Acid Receptor Edg7	Exalpha Biologicals
562	189900	Sphingolipid Receptor Edg8	Exalpha Biologicals
628	190774	Histamine H4 Receptor	Alpha Diagnostic Int.
628	190774	Histamine H4 Receptor	Chemicon
636	190955	Leukotriene B4 Receptor BLT1	Cayman

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(54) Title: ANTIGENIC PEPTIDES, SUCH AS FOR G PROTEIN-COUPLED RECEPTORS (GPCRS), ANTIBODIES THERETO, AND SYSTEMS FOR IDENTIFYING SUCH ANTIGENIC PEPTIDES

(57) Abstract: The present invention provides antigenic peptides for GPCRs and antibodies relating thereto, and related systems, methods, compositions, and the like, such as diagnostics and medicaments. Where antibodies against a given GPCR are not known, the present invention provides such antibodies, and preferred antigenic sequences for producing such antibodies. Where antibodies against a given GPCR are known, the present invention provides preferred antigenic peptides for producing antibodies that exhibit improved specificity, affinity or capacity to perform antibody-related actions relative to the known antibodies.

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## INTERNATIONAL SEARCH REPORT

Int'l Application No

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## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12N15/12 C07K14/705 C07K16/28 G01N33/53

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EMBL, SEQUENCE SEARCH, EPO-Internal, WPI Data, BIOSIS, MEDLINE

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>ZHOU FENG C ET AL: "Production and characterization of an anti-serotonin 1A receptor antibody which detects functional 5-HT1A binding sites."</p> <p>MOLECULAR BRAIN RESEARCH, vol. 69, no. 2, 8 June 1999 (1999-06-08), pages 186-201, XP002222431</p> <p>ISSN: 0169-328X</p> <p>figure 1; table 1</p> <p>---</p> <p>-/--</p>	1-10, 15-26

☒ Further documents are listed in the continuation of box C.☐ Patent family members are listed in annex.

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"&amp;" document member of the same patent family

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Internal Application No

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>RAYMOND JOHN R ET AL:            "Immunohistochemical mapping of cellular and subcellular distribution of 5-HT-1A receptors in rat and human kidneys."            AMERICAN JOURNAL OF PHYSIOLOGY,            vol. 264, no. 1 PART 2, 1993, pages F9-F19, XP001127496            ISSN: 0002-9513            the whole document, in particular figures 1, 3</p> <p>---</p>	1-10, 15-26
Y	<p>VERDOT L ET AL: "PRODUCTION OF ANTI-PEPTIDE ANTIBODIES DIRECTED AGAINST THE FIRST AND THE SECOND EXTRACELLULAR LOOP OF THE HUMAN SEROTONIN 5-HT1A RECEPTOR"            BIOCHIMIE, MASSON, PARIS, FR,            vol. 76, no. 1, 1994, pages 165-170, XP008009332            ISSN: 0300-9084            the whole document</p> <p>---</p>	1-10, 15-26
Y	<p>TODD E ANTHONY AND EFRAIAN C AZMITIA:            "Molecular characterization of antipeptide antibodies against the 5-HT1A receptor: Evidence for state-dependent antibody binding."            MOLECULAR BRAIN RESEARCH,            vol. 50, no. 1-2,            15 October 1997 (1997-10-15), pages 277-284, XP002222432            ISSN: 0169-328X            the whole document</p> <p>---</p>	1-10, 15-26
A	<p>ECKARD C P ET AL: "CHARACTERISATION OF G-PROTEIN-COUPLED RECEPTORS BY ANTIBODIES"            CURRENT MEDICINAL CHEMISTRY, BENTHAM SCIENCE PUBLISHERS BV, BE,            vol. 7, no. 9, September 2000 (2000-09), pages 897-910, XP000984970            ISSN: 0929-8673            the whole document</p> <p>---</p>	1-10, 15-26
A	<p>BACKSTROM JON R ET AL: "Generation of anti-peptide antibodies against serotonin 5-HT2A and 5-HT2C receptors."            JOURNAL OF NEUROSCIENCE METHODS,            vol. 77, no. 1,            7 November 1997 (1997-11-07), pages 109-117, XP002222433            ISSN: 0165-0270            the whole document</p> <p>---</p>	1-10, 15-26

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## INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 01/50107

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>EASON MARGARET G ET AL: "Identification of a G-s coupling domain in the amino terminus of the third intracellular loop of the alpha-2A-adrenergic receptor: Evidence for distinct structural determinants that confer G-s versus G-i coupling." JOURNAL OF BIOLOGICAL CHEMISTRY, vol. 270, no. 42, 1995, pages 24753-24760, XP002222434 ISSN: 0021-9258 the whole document -----</p>	<p>1-10, 15-26</p>

# INTERNATIONAL SEARCH REPORT

national application No.  
PCT/US 01/50107

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:  
**Although claims 19 and 20 are directed to a diagnostic method practised on the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.**
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:  
**1-10, 15-26 (all partially)**

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

Invention 1: claims 1-10, 15-26, all partially

an isolated antigenic peptide having the amino acid sequence  
SEQ ID NO: 692, nucleic acids encoding said peptide,  
antibodies directed against said peptide, kits containing  
said antibodies

Inventions 2 to 1600: claims 1-26,  
all partially and in so far as applicable

each separate, individual invention relates to an isolated  
antigenic peptide, nucleic acids encoding said peptide,  
antibodies directed against said peptide, kits containing  
said antibodies,  
wherein invention 2 is represented by the peptide having the  
amino acid sequence SEQ ID NO: 693,  
invention 3 is represented by the peptide having the amino  
acid sequence SEQ ID NO: 694,  
continuing to invention 1600, which is represented by the  
peptide having the amino acid sequence SEQ ID NO: 2292

Invention 1601: claims 27-66

a method of identifying an amino acid sequence of an  
antigenic peptide derived from a candidate polypeptide,  
peptides identified by that method, antibodies directed  
against said peptides

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